

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MICHIGAN  
SOUTHERN DIVISION**

**INTELLECTUAL SCIENCE AND  
TECHNOLOGY, INC,**

**Plaintiff,**

**Honorable Avern Cohn**

**vs.**

**SONY ELECTRONICS, INC., et al,**

**Case No. 2:06-CV-10406**

**Defendants.**

**Case No. 2:06-CV-10409**

**Case No. 2:06-CV-10412**

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**Report and Recommendation of the Special Master**

## A. Introduction

The Plaintiff in this patent infringement case, Intellectual Science and Technology, Inc. or “IS&T” has sued the Defendants, Sony Electronics Inc., JVC Americas Corp. and Panasonic Corporation of North America, accusing them of infringing U.S. patents 5,748,575; 6,662,239; 6,717,890; 6,222,799 and 6,785,198. On April 25, 2006, the Court ordered IS&T to select a Paradigm Claim from the so-called Group A or “read-read” patents (that is, from U.S. Patent Nos. 5,748,575 (the “575 patent”); 6,662,239 and 6,717,890) and a Paradigm Claim from the so-called Group B or “read-write” patents (that is, from U.S. Patent Nos. 6,222,799 (the “799 patent”) and 6,785,198). For the “read-read” patents, IS&T selected claim 1 of U.S. patent 5,748,575 and, for the “read-write” patents, it selected claim 4 of U.S. patent 6,222,799<sup>1</sup>.

The 575 and 799 patents pertain generally to apparatuses for information processing that have “multitasking” capability. Both patents introduce the problems purported to be solved by the claimed subject matter in the context of computer systems. For example, the 575 patent opens at 1: 6-13 with:

The present invention relates generally to the field of information processing utilizing optical discs and particularly to a high-efficient optical-disc-type apparatus that allows a host computer to effectively and/or multitaskingly perform various information processing actions directly from optical discs so as to alleviate the heavy burden of a hard-disk drive in the process of information reproducing.

The 799 patent purports to improve upon the subject matter of the 575 patent by offering not only read information from multiple discs, but also to write information to discs. As stated at 2:42-3:3:

In order to remedy the disadvantages and problems mentioned hereinbefore, my U.S. Pat. No. 5,748,575 advances the role of CD-ROM apparatuses in information processing from tertiary storage to secondary storage. This is achieved by providing a CD-ROM-type information processing apparatus having plural turntables for removably accommodating optical discs thereon, plural head units, control means for controlling the independent movements of the head units, signal-process systems for converting multiple sets of

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<sup>1</sup> References to passages from the patents are made in a shorthand format that identifies “column: line numbers”. Accordingly, reference to “3:32-36” refers to column 3, lines 32-36.

information from a compact disc format to the original state of the information, and data transmitting means for simultaneously transmitting multiple sets of converted information to a host computer. The CD-ROM-type information processing apparatus of U.S Pat. No. 5,748,575 enables a computer system to simultaneously and multitaskingly launch several software programs directly from original software discs, thus eliminating tedious and time-consuming software installation, affording a kind of copyright protection to software, and alleviating the burden of a hard-disk drive in information reproduction processing. However, the read-only nature of U.S Pat. No. 5,748,575 disallows any storing of user-created data files, requiring a hard-disk drive for its host computer. The present invention thus makes the optical information processing apparatus of U.S Pat. No. 5,748,575 to become a master drive having not only multiple but highly-improved functions of second and tertiary storage so as to be capable of replacing all of the drives such as hard-disk, floppy-disk, optical-disc, and backup drives that are normally needed in a conventional computer system.

The patents thus seek to address problems of the prior art by providing an apparatus that is capable of operating multiple optical discs using a single piece of equipment. Accordingly, the description of the patents is devoted largely to describing configurations by which multiple optical discs could be loaded and unloaded flexibly within the apparatus, and to systems that operate to process information relative to the discs.

Each of the 575 and 799 patents mentions tasks that involve audio information. Plaintiff has identified and relied upon various such passages in seeking a claim construction that would allow each claimed “information processing apparatus” to read on compact disc recorders sold by the Defendants. Specifically, Plaintiff asserts that claim 1 of the 575 patent and claim 4 of the 799 patent are infringed by each of the Paradigm Products, specifically, the JVC XL-R5000BK, the Sony RCD-W500C, and the Sony RCD-W1, all of which the Defendants have characterized as stereo equipment.

Defendants invoke the on-sale bar provision of 35 U.S.C. §102(b) to assert that the Paradigm Patent Claims are invalid in view of certain asserted prior art devices, specifically certain versions of a computer sold by NeXT Computer, Inc., and a stereo component sold by Defendant Sony under the designation PMC-M2.

More specifically, Defendants contend that claim 1 of the 575 patent is invalid as anticipated, under 35 U.S.C. 102(b), by a computer sold by NeXT Computer, Inc. (“Next”; a California based computer company that Steven Jobs founded in the mid-1980’s) in the late

1980's and early 1990's, called the "NeXT Computer" or the "NeXT Cube." Defendants contend that NeXT first demonstrated prototypes of the NeXT Computer in October 1988, and started selling the computers in 1989. Defendants have asserted that three different versions of the NeXT computer exist (Tr. at 66-68<sup>2</sup>):

- 1) the original version, which included two internal magneto-optical read/write "optical" drives (NeXT Version 1);
- 2) a version with an internal read/write magneto-optical drive and external "CD/ROM" drive (NeXT Version 2); and
- 3) a version with two external "CD/ROM" drives (NeXT Version 3)(regarded by the Defendants as a read-read only device pertinent only to the 575 patent).

Defendants also assert that, if the Paradigm Claims are construed to read on the Paradigm Products, an alleged prior art Sony PMC-M2 device invalidates those claims.

Defendants assert that claim 1 of the 575 patent is not infringed by any of the Paradigm Products because the Plaintiff has failed to come forth with evidence that the Paradigm Products meet "*the data transmitting means*", the "*multitasking function*", and the "*host computer*" features of the claim as properly construed. Defendants assert that claim 4 of the 799 patent is not infringed by any of the Paradigm Products because the Plaintiff has failed to come forth with evidence that the Paradigm Products meet "*multitasking*" and "*means for simultaneously controlling*" features of the claim.

## B. The Patent Claims at Issue

Claim 1 of the '575 patent reads as follows (with disputed recitations in italics):

An information processing apparatus *with multitasking function*, the information processing apparatus comprising:

- a) a plurality of turntables, each comprising a disc-setting table for mounting an optical disc;
- b) a plurality of optical units, each comprising a driving means and an optical read head, wherein said driving means is provided for moving said optical

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<sup>2</sup> References to "Tr. at \_\_\_\_" refer to the transcript from the Hearing on the Summary Judgment Motions conducted on October 2, 2007.

read head in a radial direction of said optical disc to a predetermined disc position on a surface of said optical disc;

c) means for simultaneously controlling a plurality of said driving means to move a plurality of said optical read heads to a plurality of predetermined disc positions on at least two optical discs for retrieving information stored thereon;

d) *a plurality of signal-process systems for converting a plurality of information sets retrieved by said plurality of optical read heads from a compact disc format to the original state of the information*; and

e) *data transmitting means for transmitting a plurality of the information sets converted by said plurality of signal-process systems to a host computer.*

Claim 4 of the '799 patent reads as follows (with disputed recitations in italics):

An information processing apparatus comprising:

a) a structure;

b) a plurality of turntables disposed within said structure, said turntables each being rotatable about a respective one of central axes and having means for mounting at least one disc thereon;

c) a plurality of head units, each having a driving means and a head-means group, each of said driving means being provided for moving a respective one of said head-means groups in a direction perpendicular to at least one of said central axes, *wherein each of said head-means groups comprises at least one optical head means each for interacting with a disc surface*;

d) at least one decoding unit each being provided for decoding a set of encoded information retrieved by one of said optical head means;

e) at least one encoding unit, each being provided for encoding a set of information to be stored; and

f) *means for simultaneously controlling said plurality of head units, said at least one decoding unit and said at least one encoding unit to process information in multitasking.*

### C. Joint Motions For Summary Judgment

The Defendants have moved jointly for Summary Judgment on the grounds that the Paradigm Claims are not infringed by any of the Paradigm Products. Defendants also have moved jointly for Summary Judgment that the Paradigm Claims are invalid pursuant to 35

U.S.C. 102(b). The parties have made the submissions denoted by item numbers (#'s) in the Court's docket sheet including: 27, 28, 29, 30, 31, 37, 38, 39-42 and 47-49. Oral Argument took place before the Special Master at the offices of Plaintiff's counsel on October 2, 2007. The proceedings were transcribed.

## **D. Analysis**

### **1. Legal Basis**

As set forth in *Automotive Technologies International Inc. v. BMW of North America Inc.*, 501 F. 3d 1274, 1281, 84 U.S.P.Q.2d 1108, 1112-13 (Fed. Cir. 2007), it is well established that:

Summary judgment is appropriate "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c). In addition, in deciding a motion for summary judgment, "[t]he evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986).

In terms of the underlying substantive analysis, instructive is *Amazon.com Inc. v. Barnesandnoble.com Inc.*, 239 F3d 1343, 1351, 57 U.S.P.Q.2d 1747, 1751-52 (Fed. Cir. 2001)<sup>3</sup>:

Conceptually, the first step of an invalidity analysis based on anticipation and/or obviousness in view of prior art references is no different from that of an infringement analysis. "It is elementary in patent law that, in determining whether a patent is valid and, if valid, infringed, the first step is to determine the meaning and scope of each claim in suit." *Lemelson v. Gen. Mills, Inc.*, 968 F.2d 1202, 1206, 23 U.S.P.Q.2d 1284, 1287 (Fed. Cir. 1992). "A claim must be construed before determining its validity just as it is first construed before deciding infringement." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 996 n.7, 34 U.S.P.Q.2d 1321, 1344 n.7 (Fed. Cir. 1995) (Mayer, J., concurring), aff'd, 517 U.S. 370 [38 U.S.P.Q.2d 1461] (1996).

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<sup>3</sup> Id. : "Because the claims of a patent measure the invention at issue, the claims must be interpreted and given the same meaning for purposes of both validity and infringement analyses."

Similarly, as set forth by the Court in *In re Gabapentin Patent Litigation*, 503 F.3d 1254, 1259, 84 U.S.P.Q.2d 1651, 1655 (Fed. Cir. 2007):

A determination of infringement requires a two-step analysis. “First, the court determines the scope and meaning of the patent claims asserted. . . . [Second,] the properly construed claims are compared to the allegedly infringing device.” *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 [46 U.S.P.Q.2d 1169] (Fed. Cir. 1998) (en banc) (citations omitted). Step one, claim construction, is an issue of law, *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 [34 U.S.P.Q.2d 1321] (Fed. Cir. 1995) (en banc), aff’d, 517 U.S. 370 [38 U.S.P.Q.2d 1461] (1996), that we review de novo, *Cybor*, 138 F.3d at 1456 (Fed. Cir. 1998). Step two, comparison of the claim to the accused device, requires a determination that every claim limitation or its equivalent be found in the accused device. See *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29 [41 U.S.P.Q.2d 1865] (1997). Those determinations are questions of fact, and on summary judgment, the issue is whether there is no genuine issue of material fact regarding infringement. *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1353 [48 U.S.P.Q.2d 1674] (Fed. Cir. 1998).

It is also well accepted that “[w]hen evaluating a motion for summary judgment, the court views the record evidence through the prism of the evidentiary standard of proof that would pertain at a trial on the merits. *Anderson*, 477 U.S. at 252-53.” *SRAM Corp. v. AD-II Engineering Inc.*, 465 F.3d 1351, 1357, 80 U.S.P.Q.2d 1363, 1367 (Fed. Cir. 2006). As recognized by that Court, 465 F.3d 1351, 1357, 80 U.S.P.Q.2d 1363, 1367 (Fed. Cir. 2006):

Under the patent statutes, a patent enjoys a presumption of validity, see 35 U.S.C. § 282, which can be overcome only through facts supported by clear and convincing evidence, see *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1563 [41 U.S.P.Q.2d 1225], (Fed. Cir. 1997). Thus, a moving party seeking to invalidate a patent at summary judgment must submit such clear and convincing evidence of facts underlying invalidity that no reasonable jury could find otherwise. See *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 [221 U.S.P.Q. 669] (Fed. Cir. 1984).

The burden is on the plaintiff to establish infringement by a preponderance of the evidence. *Advanced Cardiovascular Systems Inc. v. Scimed Life Systems Inc.*, 261 F.3d 1329, 1336, 59 U.S.P.Q.2d 1801, 1806 (Fed. Cir. 2001); see also, *AquaTex Industries Inc. v. Techniche Solutions*, 479 F.3d 1320, 1328, 81 U.S.P.Q.2d 1865, 1870 (Fed. Cir. 2007)(addressing requirement of plaintiff to provide “particularized testimony and linking argument” on summary judgment as to equivalency).

## **2. Claim Construction**

The following terms are among the disputed terms as a result of the Motions for Summary Judgment. In the analysis that follows, the terms are construed<sup>4</sup>.

**a. “Multitasking” as the term is used in Claim 1 of the 575 Patent**

The construction of “multitasking” as used in the 575 patent Claim 1 poses two issues: **i)** whether the usage of the term in the preamble (in this case, the text preceding the transition term “comprising”), rather than in the body of the claim (the text following the “comprising” transition term), exempts the term as a required element of the claim; and **ii)** what scope should be afforded to the claim.

**i. Usage of “Multitasking” in Preamble**

It is accepted that “[t]he preamble of a claim is not necessarily limiting.” *Epcon Gas Sys., Inc. v. Bauer Compressors, Inc.*, 279 F.3d 1022, 1029, 61 U.S.P.Q.2d 1470, 1475 (Fed. Cir. 2002). However, the preamble will be deemed limiting if “it recites essential structure or steps, or if it is “necessary to give life, meaning, and vitality” to the claim.” *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808, 62 U.S.P.Q.2d 1781, 1785 (Fed. Cir. 2002) (“Further, when reciting additional structure or steps underscored as important by the specification, the preamble may operate as a claim limitation”); see also, *Poly-America LP v. GSE Lining Technology Inc.*, 383 F.3d 1303, 1310, 72 U.S.P.Q.2d 1685, 1689 (Fed. Cir. 2004) (regarding as supportive of treating preamble as limitation the fact that term appeared in title and summary of the invention). The *Catalina* court also deemed significant any reliance upon the preamble during prosecution, stating 289 F.3d at 808-809:

Moreover, clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention. See generally *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1375, 58 U.S.P.Q.2d 1508, 1513 (Fed. Cir. 2001) (A preamble may limit when employed to distinguish a new use of a prior art apparatus or process.)

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<sup>4</sup> See, *Hakim v. Cannon Avent Group PLC*, 479 F.3d 1313, 1318, 81 U.S.P.Q.2d 1900, 1904 (Fed. Cir. 2007) (“Claim construction is directed to claims or claim terms whose meaning is disputed as applied to the patentee’s invention in the context of the accused device. When there is no dispute as to the meaning of a term that could affect the disputed issues of the litigation, ‘construction’ may not be necessary”).

A person skilled in the art would be left with the conclusion that “multitasking” should be construed as a requirement of the claim notwithstanding its only presence being in the preamble of Claim 1 of the 575 patent. From the intrinsic evidence of the 575 patent, a person skilled in the art would reasonably conclude “multitasking” was underscored as important in the specification, and it formed the basis relied upon by the Patentee for securing allowance of the 575 patent.

The term “multitasking” appears no fewer than 45 times in the 575 patent. It is present in the title of the patent. It is used to characterize and distinguish prior art in the Background of the Invention. It is also mentioned in the Summary of the Invention of the 575 patent, where multitasking capability is identified as a primary objective of the invention at 6:13-24<sup>5</sup>. On this basis alone, a person skilled in the art could regard the term as “necessary to give life, meaning, and vitality” to the claim.

Further, a review of the prosecution history reveals that the claim term was absent from the application claims as filed, but was added by Amendment date stamped August 4, 1997, in response to a prior art rejection (See Amendment Under 37 CFR §1.111; in Serial No. 08/613,806; Defendants’ Ex. B at A00054). Accompanying the amended claims was the distinguishing argument at page 22:

In summary, Applicant’s independent claims recite an information processing apparatuses(sic) that is able to simultaneously access information from multiple positions on the same or multiple optical discs, the latter of which enables direct launching of software programs from separate optical discs in true multitasking. Such a capability is neither disclosed nor suggested by Takagi.

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<sup>5</sup> See also, 575 Patent at 6:47-53:

Another object of the present invention is to provide an information processing apparatus with a variety of control means (including a plurality of microprocessors or a microprocessor with multitasking capability) so that at least two optical units are able to work coordinately and simultaneously on separate portions of a software program, for greatly improving efficiency in information reproduction.

575 Patent at 7:5-11:

The present invention improves the conventional information reproduction practice by providing an optical information processing apparatus with multitasking-capability hardware and disc-loading and -unloading flexibility means, thereby allowing a user to launch a software program or simultaneously a plurality of software programs directly from an optical disc or several optical discs stored therein.

Applicant further argued at page 25:

Applicant respectfully appreciates the Examiner's effort in perceiving the novelty and unobvious improvement in the multitasking hardware of Applicant's claims 1-17 over Pollard....

In short, it is recommended that "multitasking" be construed as a required element of claim 1 of the 575 patent.

## ii. Scope of "Multitasking"

The ordinary meaning of a patent term should govern the construction of a claim term, unless it appears from the intrinsic evidence that the patentee sought to be his own lexicographer. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 75 U.S.P.Q.2d 1321, 1329 (Fed. Cir. 2005) (en banc), *cert. denied*, 546 U.S. 1170 (2006). "A claim term may be defined in a particular manner for purposes of a patent even 'without an explicit statement of redefinition.'" *Honeywell International Inc. v. Universal Avionics Systems Corp.*, 493 F.3d 1358, 1361, 83 U.S.P.Q.2d 1425, 1428 (Fed. Cir. 2007)(citation omitted; also stating: "[w]hen a patentee defines a claim term, the patentee's definition governs, even if it is contrary to the conventional meaning of the term").

The evidence in the present case indicates that the Patentee sought to impart a particular meaning to the term "multitasking" by explicitly defining the term at 3:23-27 of the 575 patent:

In the context of the present invention, multitasking or multiprocessing *is defined as* referring to separate hardware control units that allow execution of separate or several software programs simultaneously. (emphasis added)

See, *Abbott Laboratories v. Andrx Pharmaceuticals Inc.*, 473 F3d 1196, 1210, 81 U.S.P.Q.2d 1289, 1300 (Fed. Cir. 2007). (In evaluating whether "is" was language providing an explicit definition, the Court contrasted it with the use of "as used herein", which the Court determined "unambiguously provides definitions").<sup>6</sup>

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<sup>6</sup> For further guidance, consider the case of *Abbott Laboratories v. Syntron Bioresearch Inc.*, 334 F.3d 1343, 1354-55, 67 U.S.P.Q.2d 1337, 1345 (Fed. Cir. 2003), in which the Court held that "analyte" was not defined with "reasonable clarity, deliberateness, and precision" when described to include "two alternative definitions for the term at issue" in the following:

Though the above supports a conclusion that multitasking is defined explicitly in the specification, even if it could be concluded otherwise, the intrinsic evidence does not support a construction that would exclude hardware that does not allow any execution of software programs. A review of the specification and prosecution history reveals that the use of multitasking consistently was in the context of launching software programs from an optical disc.

At 5:16-20, the 575 patent states:

In order to simultaneously launch several software programs directly from either an optical disc or multiple optical discs in accordance with the interest of the present invention, the hardware of an information processing apparatus must possess multitasking capability.

At 6:12-23, the 575 patent states:

A primary object of the present invention is to provide an information processing apparatus with multitasking-capability hardware so that a plurality of optical units are capable of independently and simultaneously moving to a plurality of disc positions, making it possible to launch one or several software programs directly from the information processing apparatus, to provide true multitasking capability, to eliminate tedious and time-consuming software installation, to offer a kind of copy-right protection, and to alleviate the burden of a hard-disk drive in information reproduction processing.

At 7:5-30, the 575 patent states:

The present invention improves the conventional information reproduction practice by providing an optical information processing apparatus with multitasking-capability hardware and disc-loading and -unloading flexibility means, thereby allowing a user to launch a software program or simultaneously a plurality of software programs directly from an optical disc or several optical discs stored therein. The multitasking-capability hardware of the present invention comprises a plurality of turntables, optical units, control means, signal-process means, and data transmitting means to coordinately work together for multitaskingly retrieving, controlling and transmitting a plurality of

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As used herein, “analyte” refers not only to the particular chemical moiety for which analysis is desired, but also to chemical moieties that are reaction products of the moiety to be determined with another chemical moiety. For example, a biological fluid containing an unknown amount of a chemical moiety may be reacted in solution or otherwise with another chemical moiety to provide a product, the concentration of which is related to the initial concentration of the chemical moiety to be measured. The resulting product, then, may become the “analyte” for use in the apparatus and method of the invention. Accordingly, “analyte” refers to any chemical moiety which is to be measured quantitatively.

information simultaneously from various position of a disc or several discs to a host computer. Turntables and optical units are arranged and rendered in a particular manner such that at least one optical unit can access any positions of at least two discs, a plurality of optical read heads situated in said optical units can independently and simultaneously access a plurality of positions on the same surface of a disc for high-speed information processing and/or a plurality of positions of separate disc surfaces for multitaskingly perform several programs at the same time. In accordance with the present invention, the number of optical units can be less as compared with that of turntables, for reducing the production costs of making an optical information processing apparatus while maintaining high efficiency in information reproduction.

See also 5:42-65 of the 575 patent.<sup>7</sup>

Also telling are the illustrative examples in the 575 patent, including the embodiment described at passage at 12:32-48, and 16:20-31, at which the patent appears to distinguish between executing software programs and playing music from a music disc (“an audio CD can be simultaneously played while a user is executing the software programs stored on the discs disposed in rear disc compartment 72”).

Plaintiff asserts that the present construction is not warranted, and that ““multitasking’ encompasses more than the running of several software programs”. Plaintiff cites to various passages from the 575 patent to identify the processing of information that may be other than a software program. However, Plaintiff proffers no boundary upon its construction of “multitasking”. Plaintiff has not advanced a basis upon which a construction could be adopted that would completely exclude capability for the launching or execution of software.

The passage relied upon by Plaintiff’s expert Michalson at 12:39-48 (see Michalson at 72<sup>8</sup>) requires the running of executable programs (“While running executable programs from discs situated in rear disc compartment 72, a user can enjoy digital music by playing a disc

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<sup>7</sup> As mentioned above, the 575 patent further states at 6:47-53:

Another object of the present invention is to provide an information processing apparatus with a variety of control means (including a plurality of microprocessors or a microprocessor with **multitasking** capability) so that at least two optical units are able to work coordinately and simultaneously on separate portions of a software program, for greatly improving efficiency in information reproduction.

<sup>8</sup> References to Michalson refer to the Plaintiff’s Exhibit 1, the Declaration of Dr. William R. Michalson (“the Michalson Declaration”), proffered as expert witness testimony by Plaintiff. Defendants’ main witness relied upon for expert testimony is Dr. Martin E. Kaliski. See Defendant’s Exhibit I. His testimony is referenced as the Kaliski Declaration.

situated in its front disc compartment 71”), as does claim 10 of the 575 patent (see Michalson at 73). To ignore the clause about running executable programs would be to eliminate one of the two specified tasks of this passage. It would reduce the “multitasking” to just a single “task” of playing music. It does not seem logical that a skilled artisan would read such passages to arrive at a construction of “multitasking” that does not include software execution.

Other passages to which Plaintiff cites do not help Plaintiff’s position. The passage at 6:14-15 of the 575 patent requires surrounding description from 6:13-23 for context:

A primary object of the present invention is to provide an information processing apparatus with multitasking-capability hardware so that a plurality of optical units are capable of independently and simultaneously moving to a plurality of disc positions, making it possible to launch one or several software programs directly from the information processing apparatus, to provide true multitasking capability, to eliminate tedious and time-consuming software installation, to offer a kind of copy-right protection, and to alleviate the burden of a hard-disk drive in information reproduction processing.

The Plaintiff also cites to 7:12-18 of the 575 patent. However, a full appreciation of the passage also requires additional context, as set forth in the passage through 7:30:

The present invention improves the conventional information reproduction practice by providing an optical information processing apparatus with multitasking-capability hardware and disc-loading and -unloading flexibility means, thereby allowing a user to launch a software program or simultaneously a plurality of software programs directly from an optical disc or several optical discs stored therein. The multitasking-capability hardware of the present invention comprises a plurality of turntables, optical units, control means, signal-process means, and data transmitting means to coordinately work together for multitaskingly retrieving, controlling and transmitting a plurality of information simultaneously from various position of a disc or several discs to a host computer. Turntables and optical units are arranged and rendered in a particular manner such that at least one optical unit can access any positions of at least two discs, a plurality of optical read heads situated in said optical units can independently and simultaneously access a plurality of positions on the same surface of a disc for high-speed information processing and/or a plurality of positions of separate disc surfaces for multitaskingly perform several programs at the same time. In accordance with the present invention, the number of optical units can be less as compared with that of turntables, for reducing the production costs of making an optical information processing apparatus while maintaining high efficiency in information reproduction.

A person skilled in the art would be unable to determine from these passages, particularly in view of the express definition provided at 3:23-27 of the 575 patent, the Patentee meant for

multitasking to contemplate performing multiple tasks, none of which involved the execution of software as one of the tasks.

The Michalson Declaration (at 72-73) on this issue of claim construction does not dictate a different conclusion. Michalson testifies:

72. While there are several instances where the inventor does refer to software, there are many other types of data which the inventor generically refers to as “information.” The inventor does not limit the use of the term “information” to “software”. Rather, he uses the term to generically refer to any type of data, including image/textual data, video and audio. (See P’s App. Ex. 2 (‘575 patent), at col. 1, lines 6-12; col. 3, lines 41-48<sup>9</sup>; col. 3, lines 51-52; col. 4, lines 54-57; col. 12, lines 39-48<sup>10</sup>; col. 15, line 64 to col. 16, line 4<sup>11</sup>; and col. 16, lines 15-19<sup>12</sup>).

73. Additional support of my interpretation that “information” does not necessarily mean “software” can be found in the patent claims, in particular, Claim 10 of the ‘575 patent. (*Id.* at claim 10). In claim 10, the inventor clearly differentiates between software, and other types of information that may be processed through the information processing apparatus.<sup>13</sup> Since the inventor demonstrates in the specification that he was aware of a variety of different types of information, including software, which can reside on optical discs, it stands to reason that if he had meant, or if the Patent had required, that Claim 1 be restricted only to software, such wording would have appeared in the claim language.

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<sup>9</sup> The passage relied upon by Michalson describes U.S. Patent No. 4,644,515, which the patent then states, at 4:4-8: “In this prior art, it is obvious that the presence of the multiple optical units is intended for speeding up disc-track access time between discs, but not for achieving any multitasking.” Therefore, the passage does not appear relevant.

<sup>10</sup> The passage at 12:39-48 immediately follows a passage that discusses that other discs in the system are operating executable software programs. The playing of music is described in the context of also executing software programs (see line 39-40; “While running executable software....”).

<sup>11</sup> The passage relied upon by Michalson at 15:64-16:4 picks up the patent text in mid-stream. The full sentence starts at 15:61, and in the earlier text refers to “software programs stored on the disc”. The passage thus appears to refer to music files that are part of software and provided on the same disc as the software.

<sup>12</sup> The passage at 16:15-19 likewise also appears to only rely upon sound information associated with software. As with the other passages cited, Michalson does not articulate evidentiary support that “multitasking” contemplates performing multiple tasks, at least one of which involves launching or executing a software program from an optical disc.

<sup>13</sup> Michalson’s testimony on Claim 10 likewise illustrates no multitasking activity that does not involve software. The sound files referred to in Claim 10 are associated with the software (i.e., “sound effects of said software program” and “so that said sound effects and said video images of said software program are simultaneously reproduced”).

Such testimony re-hashes the intrinsic evidence, but does not address how a skilled artisan could disregard the express definition provided for “multitasking” at 3:23-27, and the numerous references in the specification calling to the launching or execution of software (with specific reference to being launched from an optical disc). It sheds no meaningful light on what meaning for “multitasking” is the recognized meaning of that term to those skilled in the art. As such, it should be entitled to little or no weight. *Sinorgchem Co. Shandong v. International Trade Commission*, 511 F. 3d 1132, 1137 n.3, 85 U.S.P.Q.2d 1415, 1420 n.3 (Fed. Cir. 2007); and *Phillips v. AWH Corp.*, 415 F. 3d 1303, 75 U.S.P.Q.2d 1321 (Fed. Cir. 2005)(*en banc*), cert. denied, 546 U.S. 1170 (2006).

In short, even taking into account the extrinsic evidence in the form of the Michalson Declaration, in the context of the intrinsic evidence discussed above, it is recommended that the term multitasking should be regarded as a claim requirement, and should be construed in accordance with its stated definition to require the launching or execution of software from an optical disc as at least one of the multiple tasks performed in combination with some other task.

**b. “Data transmitting means” as Used in Claim 1 of the 575 Patent**

Construction of “data transmitting means” involves an analysis in accordance with 35 U.S.C. 112 ¶ 6 (regarding means-plus-function claims) and an analysis of whether and how “host computer” is to be construed as part of the claim.

**i. Means-Plus-Function Analysis**

The first part of the analysis of the present clause is to determine whether it is a “means-plus-function” claim element as set forth in 35 U.S.C. 112 ¶ 6, in accordance with principles as set forth in *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 531, 41 U.S.P.Q.2d 1001, 1006 (Fed. Cir. 1996) (“To invoke this statute, the alleged means-plus-function claim element must not recite a definite structure which performs the described function.”). No definite structure is recited in the claim for performing the required function of “for transmitting a plurality of the information sets converted by said plurality of signal-process systems to a host computer.” Accordingly, it is recommended that “data transmitting means” be construed as a means-plus-function claim.

Accordingly, the next step in the analysis is to construe the claim term by first determining the claimed function, and then identifying the corresponding structure in the

specification that performs the function. *Mas-Hamilton Group v. Lagard, Inc.*, 156 F.3d 1206, 1213, 48 U.S.P.Q.2d 1010, 1014 (Fed. Cir. 1998); see also *Chiuminatta Concrete Concepts v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1308, 46 U.S.P.Q.2d 1752, 1755-56 (Fed.Cir. 1998). Whether structure described in the specification is “corresponding” structure is determined by whether the specification “clearly links or associates” that structure to the function recited in the claim. *Epcon Gas Sys. Inc. v. Bauer Compressors, Inc.*, 279 F.3d 1022, 1032, 61 U.S.P.Q.2d 1470, 1477-78 (Fed. Cir. 2002)(construing “control means”, and citing *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424, 43 U.S.P.Q.2d 1896, 1900 (Fed. Cir. 1997)). This part of the analysis is a question of law. The determination of whether corresponding structure in the accused device (or prior art) is a structural equivalent is part of the infringement analysis and poses a question of fact. *IMS Technology Inc. v. Haas Automation Inc.*, 206 F. 3d 1422, 1430, 54 U.S.P.Q.2d 1129, 1134 (Fed. Cir. 2000).

The function recited in the claim 1 of the 575 patent is “*for transmitting a plurality of the information sets converted by said plurality of signal-process systems to a host computer*”. A review of the specification reveals certain structure linked to or associated with that function. Specifically, at least part of the data transmitting means is explicitly called out at 13:50-54 of the 575 patent:

data transmitting means comprising a high-speed system control bus 716, ITDM (intelligent time-division multiplexer) 717, wide-band host interface bus 718, and ROM/RAM (read only memory and random access memory) 719.

The text at 14:19-21: of the 575 patent is consistent. However, it introduces the microprocessor 714 for the transmission of multiplexed information, teaching:

The plurality of converted information sets are multiplexed by ITDM 717 in order to be simultaneously transferred to host computer 720 through wide-band host interface bus 718 that is interfaced with microprocessor 714, and ROM/RAM 719. Microprocessor 714 with multitasking capability controls the simultaneous transmitting of the multiplexed information to host computer 720.

Accordingly, it is recommended that “data transmitting means” be construed to cover hardware that includes at least the high-speed system control bus, ITDM, wide-band host interface bus, and ROM/RAM (read only memory and random access memory) of the 575 patent, and structural equivalents to such hardware that performs the function of “transmitting a plurality of the information sets converted by said plurality of signal-process systems to a host

computer". *WMS Gaming, Inc. v. International Game Tech.*, 184 F.3d 1339, 1350, 51 U.S.P.Q.2d 1385, 1392-93 (Fed. Cir. 1999)<sup>14</sup>.

## ii. Host Computer as Used in Claim 1 of the 575 Patent

A particular issue with respect to this clause is whether the term "host computer" is to be construed as a required structural element of the "data transmitting means" as proposed by Defendants in SMF# 13c and 67; Kaliski at 21. Though the intrinsic evidence directs that the data transmitting means be adapted for communicating with a host computer, it is recommended that the claim be construed so that "host computer" is not regarded as a required element of the claim.

With reference to the specification, the specification does not clearly link or associate the host computer 720 as a part of the data transmitting means.

Figure 3 likewise suggests that "host computer" was not part of the claimed apparatus. Discussing Figure 3, at 10:44-49, the specification states: "the lockout device 76 is responsive to an electrical signal issued by a host computer, so that it allows the open/close operation of disc compartments controlled from the input of the keyboard of a host computer (not shown)."

Finally, "[s]tructural features that do not actually perform the recited function do not constitute corresponding structure and thus do not serve as claim limitations". *Asyst Technologies, Inc. v. Empak, Inc.*, 268 F.3d 1364, 1370, 60 U.S.P.Q.2d 1567, 1571 (Fed. Cir. 2001). The function recited for the data transmitting means is to transmit information sets to the host computer. There is no indication how the host computer, as the destination of the information, actually performs any data transmitting function. Accordingly, for this additional

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<sup>14</sup> It appears that, in response to the August 29, 2006 Pretrial Order No. 2, the Plaintiff sought to correspond the "data transmitting means" language with the text at 13:50-51 of the 575 patent: "data transmitting means comprising a high-speed system control bus 716". The correspondence omits the ITDM, the wide-band host interface bus, and the ROM/RAM. By itself, the control bus 716 appears unable to perform the function of the claim. See, *Epcos Gas Sys. Inc. v. Bauer Compressors, Inc.*, 279 F.3d 1022, 1033, 61 U.S.P.Q.2d 1470, 1478 (Fed. Cir. 2002) ("The district court did not err in requiring that the "corresponding structure" include at least that structure necessary to perform each of the functions recited as being performed by the 'control means' in claim 16"). Further, in Plaintiff's Response to Defendants' Statement of Material Facts Not in Dispute (referred to as "SMF") #67, Plaintiff denies only to the extent that Plaintiff asserts that the data transmitting means includes a host computer.

reason, it is recommended that “host computer” should not be regarded as a required structural feature of the claim<sup>15</sup>.

That said, however, the specification of the term “host computer” in the claim should not be regarded as devoid of any legal significance in the claims. It is part of the recitation of the function of the claim element of “data transmitting means”. As such, to fulfill the data transmission function, the structure must be able to transmit converted information sets to a host computer<sup>16</sup>. The teachings illustrate that the information transmitted to the host computer is converted digital information (e.g., 8 bit data information per the 575 patent at 13:24). Accordingly, though “host computer” is not construed as a structural element, as an intended application or destination, it is recommended that its presence in the claims be construed to require that the structure of the data transmitting means be capable of handling converted digital data.

In short, it is recommended that “data transmitting means” be construed to cover hardware capable of handling converted digital data that includes at least a high-speed system control bus, an ITDM, a wide-band host interface bus, and ROM/RAM (read only memory and random access memory), and structural equivalents to such hardware.

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<sup>15</sup> Though certainly not a conclusive consideration, treatment of “host computer” as a separate element also is not consistent with the preferences of Patent Office, as reflected in the Rules of Practice as they existed when the application was pending. Per 37 C.F.R. 1.75(i)(added August 19, 1996, 61 FR 42790), “[w]here a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation”.

<sup>16</sup> Plaintiff offers through Michalson at 92 an effort to construe “host computer” by merely requiring “simply a system with processing capability, along with any suitable adjuncts, capable of using the information sets being transferred to it by the ‘data transmitting means’”. This simplistic construction appears to be too broad, in view of the intrinsic evidence.

Apart from launching and executing software programs (and creating or changing files), the specification of the 575 patent identifies at least the following functions as being performed in its preferred system: booting 15:51; issuing electrical signals (10: 44-49) for controlling a lockout device; issuing instructions (14:8); conducting multiple or “other operations” (14:32); maintaining a working directory (15:9-10); “accept information temporarily stored in ROM/RAM 719 in bursts according to the instruction of MPU 714 (14: 32-34) . It also suggests that the hardware of the host computer will include a “hard drive” (14:51; 14:67); and a video-circuit (16:9-10).

c.     **“Plurality of signal-process systems for converting a plurality of information sets ... from a compact disc format to the original state of the information,” as used in Claim 1 of the 575 Patent**

As a predicate part of this analysis, it appears that the 575 patent sought to apply the ordinary meaning of “compact disc format”, by which a person of ordinary skill in the art at the time of the invention of the 575 patent, would understand to mean information stored on a disc by pitting a master disc, which is then used to mass produce copies of the disc in a high storage capacity plastic disc that is suitably protected by a transparent layer so that subsequently a laser beam can detect the presence or absence of pits. See 575 patent at 1:16-40:

An optical disc or compact disc (CD) is made from a transparent plastic material with a thickness of about 1.2 mm that contains a protected thin metal film wherein pits (or depressions) are formed. The pits have light reflectivities different from the light reflectivity of nonpitted portions of the metal film, thus forming a series of 0s and 1s for digital storage of data. In production, a master disc is first developed from a glass disc coated with a uniform layer of photoresist material that is subjected to a series of exposures to a high-power energy beam or laser for forming various pits via the technology of photolithography. The master disc is then used to develop a nickel mother for use in stamping out multiple copies of the discs in transparent plastic material. Each of these is then coated with a thin metallic reflecting layer and then with a protective polymer coating on top of that. When reproducing the stored information, a low-power laser is used to sense the presence or absence of pits. Because a laser beam can be so focused, adjacent tracks of the spiral of pits need be no larger than 1.6  $\mu\text{m}$ . As a result, one side of a typical 120-mm (4.72-in) CD can have 20,000 tracks for holding a minimum of 500 megabytes of data which can easily store the text of a 20-volume encyclopedia, while both surfaces of a typical 133-mm (5.25-in) or a 89-mm (3.5-in) floppy disk are able to respectively hold only 1.2 or 1.44 megabytes.<sup>17</sup>

The intrinsic evidence is consistent. For example, at 13:14-25, the 575 patent specifies:

The high-frequency signals derived from each of optical read heads 127-132 are in a compact disc format or specifically in the EFM (eight-to-fourteen modulation) format and thus need to be processed by a signal-process system comprising CIRC (Cross Interleaved Reed-Solomon Code) decoder 706, CD-ROM decoder 707, and RAM (random access memory) 708 in order for the signals to be deinterleaved, demodulated,

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<sup>17</sup> Though not specific as to the time frame of the understanding of the person skilled in the art, Michalson at 24 testifies that “One of ordinary skill in the art would understand “compact disc format” to mean information in any standard compact disc format, including CD-ROM or CD-Digital Audio formats).

and decoded for error-correction process, restoring the original sequence of data symbols, and finally converting the 14-bit word back to the original 8-bit data symbol.

Also probative of the construction of compact disc format is the Defendants' Ex. 40 (at A00464), at which CD-ROM is distinguished from the NeXT Cube's original "magneto-optical disk".

Accordingly, it is recommended that "compact disc format" be construed to require a format by which pits are formed on a coated polymer disc, such that the presence or absence of the pits can be detected by a laser.

The intrinsic evidence supports that the term "plurality" has been employed in accordance with its ordinary meaning, in that it includes "more than one". As expressed by the Federal Circuit in *Dayco Products Inc. v. Total Containment Inc.*, 258 F.3d 1317, 1327-28, 59 U.S.P.Q.2d 1489, 1497 (Fed. Cir. 2001):

In accordance with standard dictionary definitions, we have held that "plurality," when used in a claim, refers to two or more items, absent some indication to the contrary. *York Prods., Inc. v. Cent. Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1575, 40 U.S.P.Q.2d 1619, 1625 (Fed. Cir. 1996) ("The term means, simply, 'the state of being plural.'").(footnote omitted).

There is no indication that the Patentee sought to use plurality other than in its ordinary sense. A comparison of Independent Claim 1 with Independent Claim 13 shows a different word choice for the number of signal processing systems. The examples in the written description illustrate the use of multiple signal process-systems (see, e.g., Fig. 7). The prosecution history indicates nothing to the contrary as well.

As to the breadth of "signal-process systems", the "signal-process system" taught in the 575 patent, though not a means-plus-function claim element, nonetheless includes the express functional requirement that the system function "for converting a plurality of information sets retrieved by said plurality of optical read heads from a compact disc format to the original state of the information".

Resort to the specification might suggest that this function requires only decoding. At 5:16-22, the 575 patent teaches:

In order to simultaneously launch several software programs directly from either an optical disc or multiple optical discs in accordance with the interest of the present invention, the hardware of an information processing apparatus must possess

multitasking capability. This requires not only having a plurality of optical units but also a variety of signal process means (such as decoders)....

From this passage a person skilled in the art could reasonably understand the noted “signal process means” to at least include decoders. The specification identifies two type of decoders: (1) CIRC (Cross Interleaved Reed-Solomon Code) decoder 706; and (2) a CD-ROM decoder 707.<sup>18</sup>

The construction herein thus takes into account the description at 13:14-27 of the 575 patent, which identifies components of a “signal-process system”:

The high-frequency signals derived from each of optical read heads 127-132 are in a compact disc format or specifically in the EFM (eight-to-fourteen modulation) format and thus need to be processed by a signal-process system comprising CIRC (Cross Interleaved Reed-Solomon Code) decoder 706, CD-ROM decoder 707, and RAM (random access memory) 708 in order for the signals to be deinterleaved, demodulated, and decoded for error-correction process, restoring the original sequence of data symbols, and finally converting the 14-bit word back to the original 8-bit data symbol. RAMs 708 are used in temporarily storing data for reassembling during the signal processing proceeded in the respective signal-process system.

See also, 14:11-15:

After being deinterleaved, demodulated, and decoded by CIRC decoders 706 and CD-ROM decoders 707, the plurality of information sets retrieved from optical read heads 127-132 are converted back to the original 8-bit data symbol.

In short, the functional requirement of “for converting a plurality of information sets retrieved by said plurality of optical read heads from a compact disc format to the original state of the information”, is construed to include not merely conversion of data, but the associated functions necessary to convert the data from the state it is detected by the optical read heads (namely, from a format by which pits are formed on a coated polymer disc, such that the presence or absence of the pits can be detected by a laser of the optical read heads) and ready it for transmission to a host computer, including error correction. Thus, it is recommended that the

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<sup>18</sup> At 13:14-22, the 575 patent suggests that the converting function only occurs after “being deinterleaved, demodulated, and decoded”. To construe “variety of signal process means” to be limited to a decoding function only thus would exclude from the function performed by the signal processor the functions of deinterleaving, demodulating, and converting.

construction of the signal-process systems of this claim element require a decoding feature pursuant to which error correction is performed.

d. **“Means for Simultaneously Controlling said Plurality of Head Units, Said at Least One Decoding Unit and Said at Least One Encoding Unit to Process Information in Multitasking” as Used in Claim 4 of the 799 Patent**

This element generally addresses how the individual head units are operated and how information is read from or to a disc. This claim does not provide any definite structure for performing the claimed function. Accordingly, it is proper to treat it as a means-plus-function claim. The function recited is “for simultaneously controlling said plurality of head units, said at least one decoding unit and said at least one encoding unit to process information in multitasking”. The next step in the analysis, therefore, is to identify the structure linked in the specification to the performance of this function, which involves the simultaneous control of three structures to process information in multitasking: 1) the plurality of head units; 2) at least one decoding unit; and 3) at least one encoding unit. The Parties diverge in their respective analysis of this issue.

Plaintiff asserts a construction aimed at any system control unit, as long as it operates optical units and decoding and encoding functions. In contrast, Defendants advance a more specific construction that contemplates not merely system control units, but local control units that are interfaced by a system control unit, but which specifically control the operation of individual head units.

Plaintiff relies upon column 3, lines 48-49 of the specification, an excerpt from the “Summary of the Invention” section of the 799 patent: “a system control unit for coordinating operation of an enabling direct communication of the head units....”

Plaintiff’s expert Michalson advances the following constructions at Paragraphs 50 and 124<sup>19</sup> (text of the testimony is diagrammed for comparison by aligning passages side-by-side in the Table below):

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<sup>19</sup> The Plaintiff and the Defendants each rely upon the extrinsic evidence of their respective expert witnesses. It is not seen that any significant weight should be afforded to the testimony of either expert, inasmuch as the testimony does not help to provide: “background on the technology at issue, to explain how an invention works, to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1318, 75

Michalson at 50	Michalson at 124
<p>One would understand clause (f) to mean</p> <p>one or more control units configured to simultaneously coordinate the operation and movement of the optical units and operation of the decoding and encoding units to concurrently process the two different sets of information.</p>	<p>In my opinion, one of ordinary skill in the art would understand the recited “means for simultaneously controlling” claim element to mean</p> <p>one or more control units configured to simultaneously coordinate the operation and movement of the optical units and operation of the decoding or encoding of information functions.</p>

The Michalson testimony at 50 does not speak to the person having ordinary skill in the art, though Paragraph 124 does. However, Michalson at 124 speaks more broadly of the control units coordinating the decoding or encoding of information functions. For support, Dr. Michalson relies upon the following passages from the 799 patent:

1) 3:48-49:

“a system control unit for coordinating operation of an enabling direct communication of the head units....”

2) 10:57-61:

Each of the local control units controls operation of a respective one of the head units, a respective one of the decoding/encoding units, and a respective one of the servo controls in a local level, so as to allow multitasking to take place most effectively.

3) 11:6-11:

In essence, system control unit 920 coordinates operation of head units 740-743 in interacting with discs 770-776 so as to allow selected two of head units 740-743 to simultaneously process two sets of information associated selectively with the same task

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U.S.P.Q.2d 1321, 1330 (Fed. Cir. 2005) (*en banc*). However, the testimony is referenced herein to the extent that it identifies salient excerpts from the intrinsic evidence.

for improving information-process speed and with different tasks for achieving true multitasking.

In contrast, for their construction (which calls for both a system control unit and local control units), the Defendants have relied (at page 19 of its Brief in Support of Summary Judgment on the basis of noninfringement) upon the construction advanced by Dr. Kaliski in his Declaration at 28:

A microprocessor, system control bus, ITDM (intelligent time division multiplexer), host interface bus, ROM/RAM (read only memory and random access memory), local processing control systems containing local control units having an MPU and ROM/RAM and a host computer. (Exhibit 4, col. 5, ll. 31-35, col. 6, ll. 7-17, col. 10, l. 48-col. 11, l. 11)

The intrinsic evidence to which Kaliski refers is reproduced as follows:

- 1) 5:31-35:  
Local control units 210 and 260 respectively containing MPUs 211 and 261 and ROMs/RAMs (read-only memories and random access memories) 212 and 262 are provided for controlling operation of the respective decoding/encoding units and the respective servo controls in a local level, so as to allow multitasking to take place most effectively.
- 2) 6:7-17:  
Local control units 210 and 260 are interfaced by a system control unit 290 containing MPU 291 and ROM/RAM 292 through wide-band host interface 293 and system control bus 294. The read-only memory portion of ROM/RAM 292 contains basic instructions needed for MPU 291 to issue control signals to MPUs 211 and 261 for coordinating operation of head units 120 and 130. ITDM (intelligent time-division multiplexer) 295 and other wide-band buses are provided in order for plural sets of data decoded by decoding units 220 and 270 to be simultaneously transmitted to a host computer 296.
- 3) 10:48-11:11:  
A simplified block diagram of a control system of information processing apparatus 700 is shown in FIG. 9. Head units 739-743 respectively contain optical head means 949-953, and driving means 959-963 that are respectively interacted by local processing-control systems 909-913. Each of local processing-control systems 909-913 contains a local control unit (each having a MPU and a ROM/RAM), and a decoding unit. Local processing-control systems 912 and 913 each additionally comprises an encoding unit for performing information writing. Each of the local control units controls operation of a respective one of the head units, a respective one of the decoding/encoding units, and a respective one of the servo controls in a local level, so as to allow multitasking to take place most effectively. Conversion of audio data between analog and digital formats is

performed by an audio-processing unit 905. Turntable motors 901 and 902 rotate respective turntables 779 and 780-786 either at a CLV scheme or at a CAV scheme. A system control unit 920, comprising MPU a 921, a ROM 922, a RAM 923, and a SRAM (static random access memory) 924, is connected to each of the local processing-control systems 909-913 for interacting with a host computer 930 and for coordinating the local operations of the local control units contained in local processing-control systems 909-913 through wide-band host interface 925 and system control bus 926. In essence, system control unit 920 coordinates operation of head units 740-743 in interacting with discs 770-776 so as to allow selected two of head units 740-743 to simultaneously process two sets of information associated selectively with the same task for improving information-process speed and with different tasks for achieving true multitasking.

Kaliski also bases his construction upon the prosecution history for the 799 patent in which element (f) was added to the claim 9 (which became Paradigm Claim 4 of the 799 patent), in response to a rejection under 35 U.S.C. §102(b) and 103(a) in view of Pollard et al (U.S. Patent No. 5,375,113).<sup>20</sup> That feature was subsequently amended in an Amendment submitted on or about November 20, 2000.

Plaintiff's proposed construction does not provide a complete identification of the structure necessary to perform the function recited in the claim, which is not merely to control the optical heads, but also (in the words of the claim) "to process information in multitasking."<sup>21</sup>

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<sup>20</sup> As support for the amendment to the claim, pursuant to 35 U.S.C. §112, para. 1, Plaintiff relied upon the passage at page 14, lines 19-27 of the specification, which stated:

A system control unit 920, comprising MPU a 921, a ROM 922, a RAM 923, and a SRAM (static randomaccess memory) 924, is connected to each of the local processing-control systems 909-913 for interacting with a host computer 930 and for coordinating the local operations of the local control units contained in local processing-control systems 909-913 through wide-band host interface 925 and system control bus 926. In essence, system control unit 920 coordinates operation of head units 740-743 in interacting with discs 770-776 so as to allow selected two of head units 740-743 to simultaneously process two sets of information associated selectively with the same task for improving information-process speed and with different tasks for achieving true multitasking.

From such action alone, it is plain that the plaintiff contemplated that the structure for performing this function in the claim element include at least a control unit comprising an MPU, a ROM, a RAM, and a SRAM (static random access memory).

<sup>21</sup> Data transmission does not appear to be part of this function, in view of claim 5, which employs the transition "further comprises" to introduce "means for simultaneously transmitting at least two sets of information between said information-storage apparatus and a host computer."

The embodiments featured in the specification illustrate both local control units, and system control units, both of which are described to include a microprocessor with memory for storing and issuing instructions. See 799 at 10:53-57 (“Each of local processing-control systems 909-913 contains a local control unit (each having a MPU and a ROM/RAM), and a decoding unit”). In regard to the system control unit, the 799 patent states at 11:12-23:

ROM 922 contains basic instructions needed for MPU 921 to issue control signals to the local control units contained in local processing-control systems 909-913; and, RAM 924 is provided for temporarily storing information such as the suspended activities of head units 739-743 during information processing. SRAM 924 is afforded for storing basic information such as the read-only or erasable/rewritable nature of discs 769-776 and directory-structure information or path tables of discs 769-776, allowing information processing apparatus 700 to instantly determine the very disc with which a new task is to be proceeded. This also eliminates the step of requesting each head unit to read the TOC information of each respective disc, when host computer 930 is booted. Thus, any new reading/writing task can be instantly executed.

The structure relied upon by Plaintiff does not address the specific structure identified in the specification that includes a MPU and a ROM/RAM. The passages relied upon by the Defendants, however, illustrate the significance of such structure.

The prosecution history for the 799 Patent indicates that the Patentee relied upon the passage at page 14, lines 19-27<sup>22</sup> to support its amendment of application claim 9 to recite the present feature. That passage recites:

A system control unit 920, comprising MPU a 921, a ROM 922, a RAM 923 and a SRAM (static random-access memory) 924, is connected to each of the local processing-control systems 909-913 through wide-band host interface 925 and system control bus 926. In essence, system control unit 920 coordinates operation of head units 740-743 in interacting with discs 770-776 so as to allow selected two of head units 740-743 to simultaneously process two sets of information associated selectively with the same task

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<sup>22</sup> See pages 5-6 of “Response Under 37 CFR §1.111” filed on or about May 11, 1999:

Independent claim 9 has been amended to recite, as detailed in Applicant’s specification at page 14, lines 19-27, an information processing apparatus comprising means for simultaneously controlling a plurality of head units, a plurality of decoding units, and at least one encoding unit, so as to process information in true multitasking and/or to launch a plurality of software programs simultaneously from optical discs separately mounted on a plurality of turntables.

See also, pages 13 and 16 of that paper, in which this feature was urged as a significant feature supporting patentability.

for improving information-process speed and with different tasks for achieving true multitasking.

It is clear that, at a minimum, clause (f) of the claim should be construed to encompass a system control unit that comprises a microprocessor, ROM, RAM and SRAM, and structural equivalents.

It also appears essential from the embodiments disclosed in the written description that some local control units are necessary. There is no identification or reliance upon teachings in the specification of direct control of the head units in the absence of the local control units. See also, Michalson at 123; 799 Patent at Fig. 2 (elements 210 and 260); and 799 Patent at Fig. 9 (elements 909-913).

The doctrine of claim differentiation does not compel a different outcome, in view of dependent claim claim 8<sup>23</sup>. See generally, Phillips, 415 F.3d at 1314-15 (“[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.”). Rather, it appears that the skilled artisan would regard claim 8 as narrower than Claim 4, and differentiation is maintained without the need to omit local control units from clause (f) of claim 4. See, e.g., *IMS Technology Inc. v. Haas Automation Inc.*, 206 F. 3d 1422, 1431, 54 U.S.P.Q.2d 1129, 1135 (Fed. Cir. 2000).

In short, it is recommended that the clause of element (f) of 799 Patent Paradigm Claim 4 be construed to require a combination of a system control unit that includes a microprocessor with both ROM, RAM and SRAM, with local control units (each containing a microprocessor, ROM and RAM), and structural equivalents that perform the function of “simultaneously controlling said plurality of head units, said at least one decoding unit and said at least one encoding unit to process information in multitasking”.

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<sup>23</sup> Claim 8 recites:

8. The information processing apparatus of claim 4, wherein said means for simultaneously controlling comprises local control units each for controlling a respective one of said head units to perform information processing in a local manner and a system control unit for coordinating operation of said local control units to simultaneously process said at least two sets of information.

e.     **“Multitasking” as used in the 799 patent**

Counsel for the Parties agreed at the hearing that the construction of “multitasking” applied in one of the patents would apply to the other as well. The transcript at 42-43 reads:

**MR. DOBRUSIN:** Mr. Lo Cicero stated that you believe there is no dispute at multitasking in the ‘575 patent; the definition of the construction of that term is the same in the ‘799 patent. Is that the position of the Plaintiff?

**MR. BASTA:** Well, we’re defining it the same for both patents in terms of describing what the, what the hardware –

**MR. DOBRUSIN:** So whatever construction is adopted for multitasking –

**MR. BASTA:** In one would apply, would apply to both.

**MR. DOBRUSIN:** Okay.

**MR. BASTA:** Right.

**MR. DOBRUSIN:** And I assume that is what the position of the Defendants is as well?

**MR. LO CICERO:** Yes, sir.

Accordingly, on this basis, the construction of “multitasking” as discussed for the 575 patent is adopted for the 799 patent.

Independent of the above, there appears to be no evidence to suggest that a different meaning of “multitasking” was sought to be employed in the 799 patent relative to the 575 patent. Unlike the 575 patent, there is no express definition of “multitasking” in the 799 patent. However, the 799 patent is directed toward an improvement to the 575 patent. In fact, the 799 patent specifically characterizes the 575 patent in the Background of the Invention at 2:54-64 of the 799 patent:

The CD-ROM-type information processing apparatus of U.S Pat. No. 5,748,575 enables a computer system to simultaneously *and multitaskingly launch several software programs* directly from original software discs, thus eliminating tedious and time-consuming software installation, affording a kind of copyright protection to software, and alleviating the burden of a hard-disk drive in information reproduction processing. However, the read-only nature of U.S Pat. No. 5,748,575 disallows any storing of user-created data files, requiring a hard-disk drive for its host computer. (emphasis added)

Immediately thereafter, in the “Objects of the Invention” section, the 799 patent expresses at 3:6-9: “A first object of the present invention is to provide an information processing apparatus capable of performing not only information reading in multitasking but information writing”. The ability to overcome the “tedious, time-consuming software-installation

process”, due to multitasking, is urged as an advantage at 11:47-50. A specific example is provided in Column 10 and describes usage of particular software.

At 10:39-47 of the 799 patent, the patent again extols the virtues of multitasking in the context of launching or executing software:

Owing to the high-speed and multitasking nature of information processing apparatus 700 of the present embodiment, it becomes possible to launch or execute software programs directly from original software discs. This eliminates the conventional, tedious and time-consuming software installation procedure in which a software program stored on a plurality of floppy diskettes or an optical disc has to be (decompressedly) copied to a hard-disk drive from where the software program is then launched.

Plaintiff urges that passages such as the following at 10:30-38 of the 799 patent warrant a construction of multitasking that is not limited to launching and executing software programs:

While running system and/or application software programs from discs situated in lower compartment 760, a user can enjoy digital music by playing an audio disc situated in upper compartment 710. The individual open/close operation capability of upper compartment 710 and lower compartment 760 further allows the user to change a music disc, when needed, without interrupting his/her active sprograms (sic) performed in lower compartment 760, and vice versa.

However, this passage shows that even if multitasking could be construed to include performing tasks other than launching or executing software, it does not support a construction that omits any launching or execution of software from an optical disk.

The “multitasking” function also was relied upon by the patentee as a significant distinguishing feature during prosecution. See Amendment filed on or about November 20, 2000.<sup>24</sup> In short, it is recommended that “multitasking” as employed in Claim 4 of the 799

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<sup>24</sup> The third full paragraph of Page 3 of the Amendment stated:

As amended, Applicant’s independent claim 9 recites the information processing apparatus having a novel characteristic of multitasking between a plurality of turntables and central axes. More specifically, Applicant’s information processing apparatuses therein requires means for simultaneously controlling a plurality of head units, at least one decoding unit, and at least one encoding unit for simultaneously processing information from the discs or disc packs separately mounted on the plurality of turntables each rotatable about a respective one of central axes in true multitasking, which is novel and not taught by either Kang et al. or other cited references of record. Applicant has to respectively point out that Applicant’s independent claim 9 recites the information processing apparatus having the plurality of turntables and central axes and the multitasking function, which are not achievable by and totally different from a hard disk drive with a single rotating central axis designed for the sole purpose of aiming to increase data storage.

patent be construed to require the launching or execution of software as one of the multiple tasks performed in combination with some other task.

**f. “Optical Head Means...for Interacting with a Disc Surface”**

This clause does not specify any structural particularity for the “optical head means”. Accordingly, it is recommended that it be construed as a means plus function element.

The function of the optical head means is identified in the claims as “interacting with a disc surface”. The specification describes the nature of the interactions as directing a light beam at an optical disc and sensing a signal (799 Patent at 5:36-39) for reading, or emitting “a laser beam at increased output power” (799 Patent at 6:2) for writing to a disc.

Plaintiff has relied upon the embodiment of Fig. 2 and the passage at 5:14-18 for seeking to invoke a construction of “optical head means” that requires reading and writing “using light and optics only” (Plaintiff’s Brief (Invalidity)<sup>25</sup>) at 13; Plaintiff’s Counterstatement to SMF#83 (Invalidity)):

Optical head means 121 and 131 each having elements such as a semiconductor laser diode, objective lens, projection lens, photosensors, λ-4 wave plates, polarizing and beam-splitting prisms, are provided for interacting with optical disc 140. (P’s response to Court order).

Defendants argue at page 6 of their Reply Brief (Invalidity) that Plaintiff has ignored the usage of the clause “optical head means” to describe “optical head means 1131-1136”, in the embodiment of Figure 10 (see 799 patent at 12:41-42). According to the 799 patent at 12:22-51, discs 1111 and 1112 are magneto-optical discs. Thus, the optical head units 1121 and 1122 must be capable of processing information magneto-optically. Defendants’ argument might be sound, but for the text in the 799 patent at 12:43-45, which specifically characterizes the head units 1121 and 1122 “each further comprising means for generating magnetic impulses” to be able to read and write. As mentioned, elsewhere in the specification, the Patent describes read/write

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<sup>25</sup> References to Briefs and Counterstatements of Material Facts (“Counterstatement to SMF”) are distinguished by reference to whether they pertain to the Invalidity or Noninfringement bases for the Motions (e.g., “P’s Infr. Brief” refers to the Brief of Plaintiff in response to the summary judgment motion on the issue of noninfringement; “D’s App.” refers to the Appendix filed by Defendant).

head units that do not employ magnetic impulse generation (see 799 patent at 5:14-18). The construction proffered by Plaintiff is not inconsistent with this passage<sup>26</sup>.

In short, it is recommended that “optical head means” be construed to cover an optical head device that interacts with a disc surface by writing and reading from the disc using light, optics (lenses, prisms and waveplates) and photosensors, and structural equivalents that perform such interacting function.

### 3. Invalidity

#### a. Invalidity on Basis of NeXT Computers

Defendants have asserted that the Paradigm Claims are anticipated by one or more of the NeXT versions 1, 2 and 3. Defendants extrapolate from such position that the claims are therefore invalid under 35 U.S.C. § 102(b). Defendants have the heavy burden to establish invalidity by clear and convincing evidence. In the context of the present motions for summary judgment, Defendants also have the burden to establish the absence of a genuine issue of material fact. In *Meyers v. Asics Corp.*, 974 F.2d 1304, 1306-07, 24 U.S.P.Q.2d 1036, 1037-38 (Fed. Cir. 1992) the Federal Circuit expressed:

The movant bears the burden of demonstrating that no genuine dispute exists over a material fact. *Adickes v. Kress & Co.*, 398 U.S. 144, 157 (1970). Where, as here, the movant has the burden of proof on defenses raised in a summary judgment motion, the movant must show that there is no genuine issue of material fact as to every element of the defenses. *Brooks Shoe*, 912 F.2d at 1461, 16 U.S.P.Q.2d at 1056. See *Celotex v. Catrett*, 477 U.S. 317, 322-23 (1986).

See also, *Street v. Bradford*, 886 F.2d 1472, 1479-1480 (6th Cir. 1989).

As set forth in *Schumer v. Laboratory Computer Systems Inc.*, 308 F.3d 1304, 1315, 64 U.S.P.Q.2d 1832, 1841 (Fed. Cir. 2002):

A patent shall be presumed valid.” 35 U.S.C. §282 (2000). To overcome this presumption of validity, the party challenging a patent must prove facts supporting a determination of invalidity by clear and convincing evidence. *Apotex USA, Inc. v. Merck & Co.*, 254 F.3d 1031, 1036, 59 U.S.P.Q.2d 1139, 1142-43 (Fed. Cir. 2001), cert. denied, 122 S. Ct. 1196 (2002) (citing *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1360, 220

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<sup>26</sup> The cases relied upon by Defendants do not stand for the proposition that it is necessary that each alternative embodiment be within the scope of a construed claim. See, *Sinorgchem Co. Shandong v. International Trade Commission*, 511 F. 3d 1132, 1137, 85 U.S.P.Q.2d 1415, 1420 (Fed. Cir. 2007); and *Rheox Inc. v. Entact Inc.*, 276 F.3d 1319, 1327, 61 USPQ2d 1368, 1374 (Fed. Cir. 2001).

U.S.P.Q. 763, 770 (Fed. Cir. 1984)). Whether a patent is anticipated under section 102(b) is a question of fact. *Apple Computer, Inc. v. Articulate Sys., Inc.*, 234 F.3d 14, 20, 57 U.S.P.Q.2d 1057, 1061 (Fed. Cir. 2000). On summary judgment, all justifiable inferences are made in favor of the nonmovant, here Schumer. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986) (“The evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor.”). LCS failed to meet its high burden of showing invalidity on summary judgment.

As quoted by the court in *Dana Corp. v. American Axle & Manufacturing Inc.*, 279 F.3d 1372, 1375-76, 61 U.S.P.Q.2d 1609, 1611 (Fed. Cir. 2002):

When the asserted basis of invalidity is a public use or on-sale bar, the court should determine “whether the subject of the barring activity met each of the limitations of the claim, and thus was an embodiment of the claimed invention.” *Scaltech Inc. v. Retec/Tetra, L.L.C.*, 178 F.3d 1378, 1383, 51 U.S.P.Q.2d 1055, 1058 (Fed. Cir. 1999).

#### **i. The Evidence Presently is Insufficient to Establish a Prior Art Activity for Versions 2 and 3 of the NeXT Computer**

As a preliminary matter, at the hearing, the Defendants asserted that judgment is appropriate because, *inter alia*, Plaintiff has put forth no evidence in response to the Motion as pertaining to Versions 2 and 3 of the NeXT computer. More specifically, Defendants assert Versions 1 through 3 against the 575 patent, but only Versions 1 and 2 against the 799 patent (Tr. at 68:1-4). Defendants assert that Plaintiff has not addressed the second and third configurations in its papers. (Tr. at 66:21-23).

The premise advanced by Defendants is that Versions 2 and 3 of the NeXT Computer constitute prior art. More particularly, Defendants have asserted that NeXT Computer users configured their NeXT Computers in the 1980’s and 1990’s to include external drives, and a NeXT Computer, if so configured, would meet the requirements of the Paradigm Claims. However, Defendants have not presented sufficient evidence to carry their burden to prove by clear and convincing evidence both that such configurations actually were made, and that the configurations actually made were sufficiently public or commercial that they constituted a statutory prior art activity (sale, use or publication), prior to the critical dates of the 575 or 799 patents<sup>27</sup>.

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<sup>27</sup> Defendants have not yet established that Versions 2 and 3 constitute prior art under 35 U.S.C. §102. It is not clear from the record whether Defendants seek to rely upon the “on-sale bar”, the “public-

Upon poring over the record (including the evidence enumerated in the following Table) in an attempt to extract and marshall the evidence, it appears that the following is among the evidence upon which Defendants rely to support its motion relative to Versions 2 and 3:

<b>Witness</b>	<b>General Relation of Witness</b>	<b>Exhibits of Witness</b>
Webster (Tab E: A00081-92)	Published NeXT book in 1989	Defendants Exs. 1-9 (A00093-00241)
Seamons (Tab F: A00242-57)	Worked at NeXT 1986-1993	Defendants Exs. 10-32 (A00258-437)
Brokaw (Tab G: A00438-43)	Acquired two NeXT Computers	Defendants Exs. 33-38 (A00444-452)
Rencsok (Tab H: A00453-58)	Currently owns NeXT Cube	Defendants Ex. 39-42 (A00459-476)
Kaliski (Tab I: A00477-490.3)	Defendants have advanced him as expert	Defendants Exs. 43-44 (A00491-497)

1. Declarant Rencsok testified that he worked on NeXT computers while a student at Michigan State University in 1988 and 1989. (Rencsok at 7). He also testifies as to how he has used his own personal NeXT computer. Rencsok states at 18 that “I have personally connected my NeXT CD-ROM Drives in a daisy chain manner to my Dual Drive NeXT Cube via the SCSI port.” However, he does not testify when and under what circumstances he did this.
2. Declarant Brokaw testified about his purchase of NeXT computers in 1992, and how he used his computers. He also testified (Brokaw at 13) that in 1993 he “personally connected an external CD-ROM drive to (his) NeXT Cube via the SCSI port as early as 1993.” He also testified that “I was aware that I could have connected a second CD-ROM to my NeXT Cube by daisy chaining the second CD-ROM to the first CD-ROM.” Id. However, he does not specify to which of his three NeXT Cubes he connected the external CD-ROM, nor the manner of such connection, any modifications that he may have performed<sup>28</sup>, or the structure or

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use” bar, or even the “printed publication bar”. At present, there is not enough evidence in the present record to show that versions 2 and 3 were offered for sale, that any purported use was not an experimental use that would negate the Section 102(b) bar, or that a single printed publication that describes all features of versions 2 and 3 in the context of each element of the Paradigm Claims. See generally, *SRI, Int'l. v Internet Security Systems, Inc.*, 511 F.3d 1186, 85 U.S.P.Q. 2d 1489 (Fed. Cir. 2008).

<sup>28</sup> See Brokaw Exs. 37 and 38. See also Defendants’ Ex. 7 at (A00221)(“This section describes how to connect the external CD-ROM drive to a NeXTstation™, NeXTstation Color, or NeXTcube™ computer. If you’re connecting the drive to an older NeXT computer that has a 68030 processor board, the procedure is the same except that you use a SCSI-1 to SCSI-1 cable”).

operation of it<sup>29</sup>. Additionally, Brokaw's testimony, even if taken as true, does not establish that the entire assembled apparatus was offered, or whether his activities were public.

3. The evidence describing the NeXT cube (see Rencsok and Webster Declarations and attachments) pertains generally to the machine as introduced in 1989<sup>30</sup>. The evidence does not address what if any modifications to the computer between 1989 and 1992 that may have been made by NeXT. For example, the evidence supports that NeXT had reliability problems that required modifications (Defendants Ex. 40 at A00465 (Blue insert box)):

But the optical drive had problems with speed and reliability. It was just too slow for general use – so slow that NeXT was forced to provide customers of its optical disk-only systems with a 40 MB accelerator hard disk for swapping. Although NeXT overcame the initial reliability problems with add-on dust filters, other reliability problems remained.

4. The operation of the system as it existed in 1992 is not clear from the evidence either. Indeed, at page 30 of the NeXTWORLD Article (Defendants' Ex. 40; col. 1, 2<sup>nd</sup> full ¶ at A00465), the article indicates that “digital information stored on an audio disc can't be read directly into the computer through the SCSI port”.
5. Declarant Webster testified that he authored a book published in 1989 entitled *The NeXT Book*, (Webster at 5; Defendants' Ex. 1), and that he also published two articles in 1989 about the NeXT computer. Webster, like the others, does not testify as to an actual complete apparatus that included the external CD-ROM drives. Webster states at 50:

Because of that, I have personal knowledge that NeXT offered for sale in the United States starting in 1989 a configuration of the original NeXT computer that had two internal read/write optical disk drives, and could support up to six(6) external CD-ROM drives as well. Further this same NeXT computer ran a true multitasking operating system and could have

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<sup>29</sup> Brokaw does not even state if his CD-ROM drive was the one described in Defendants' Ex. 7 (A00206-39).

<sup>30</sup> The photograph of Exhibit 35 appears to be of a NeXT Cube, but does not specify it was his NeXT cube.

independent programs and/or tasks accessing all of these read/write optical disc drives and CD-ROM drives simultaneously.

6. Paragraph 33 of Seamons is similar. It speculates possible configurations, but does not establish the existence of actual configurations.
7. Further, paragraph 21 of Webster addresses the purchase by Pages Software of external CD-ROM drives, but does not specify their use or operation in any particular assembly.
8. The External CD-ROM Drive Owners Guide (introduced by Webster as Defendants' Ex. 7 (A00206-39)), though acknowledging the use of the Drive with various NeXT products (see page A00221), the structure of which Defendants have yet to link with the NeXT products explained. The Guide also does not provide detailed explanation for the particular hardware employed in the Drive (e.g., the hardware for reading data from a disc, for transmitting data from the disc, for controlling the Drive operation, and signal processing).
9. Defendants do not rely upon the Kaliski Declaration to establish the Versions 2 and 3 as prior art.

The complete structure and operation of such Versions 2 and 3 have not yet been established by clear and convincing evidence.<sup>31</sup> The nature of the activities also have not been proved sufficiently to amount to a bar to patentability under 35 U.S.C. §102. Consequently, it was not necessary for Plaintiff to have introduced evidence on these Versions to create a question of fact. See generally, *Broomall Industries, Inc. v. Data Design Logic Systems, Inc.*, 786 F.2d 401, 229 U.S.P.Q. 38 (Fed. Cir. 1986) (“As the Supreme Court pointed out in *Adickes v. S.H. Kress & Co.*, 398 U.S. 144, 160 (1969), if the evidentiary matter in support of the motion for summary judgment does not establish the absence of a genuine issue, summary judgment must be denied even if no opposing evidentiary matter is presented”). Though not binding upon this Court, also persuasive on this issue is *Chanel Inc. v. Italian Activewear of Florida Inc.*, 931 F.2d 1472, 1477, 19 U.S.P.Q.2d 1068, 1071 (11th Cir. 1991), where the Court held:

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<sup>31</sup> The Briefs do not provide any roadmap to the evidence supporting Versions 2 and 3. There is no detailed explanation of how each claim element is disclosed in these versions. *Schumer v. Laboratory Computer Systems Inc.*, 308 F.3d 1304, 1316, 64 U.S.P.Q.2d 1832, 1841 (Fed. Cir. 2002); see also, *Street v. Bradford*, 886 F.2d 1472, 1479-80 (6th Cir. 1989)

Chanel further suggests summary judgment was proper because, in response to its lengthy and well-documented motion, appellants filed only three pages of argument and one affidavit from Brody. Once a moving party has sufficiently supported its motion for summary judgment, the non-moving party must come forward with significant, probative evidence demonstrating the existence of a triable issue of fact. See Ferguson v. National Broadcasting Co., Inc., 584 F.2d 111, 114 [ 200 U.S.P.Q. 65 ] (5th Cir. 1978). But - particularly where, as here, the moving party is also the party with the burden of proof on the issue - it is important to remember the non-moving party must produce its significant, probative evidence only after the movant has satisfied its burden of demonstrating there is no genuine dispute on any material fact. See Clark v. Coats & Clark, Inc., 929 F.2d 604 (11th Cir. 1991); cf. American Viking Contractors, Inc. v. Scribner Equip. Co., 745 F.2d 1365, 1369 (11th Cir. 1984). And, as previously noted, there is no genuine dispute only if a reasonable jury could not return a verdict for the non-moving party. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248, 106 S.Ct. 2505, 2510, 91 L.Ed.2d 202 (1986). Chanel's evidence does not demonstrate lack of a genuine dispute on intent; so appellants did not have to present the significant, probative evidence Ferguson requires.

In short, Defendants have not satisfied their burden on summary judgment to establish an absence of a genuine issue of material fact as to whether the Paradigm Claims are anticipated by the Versions 2 and 3 of the NeXT Computer or whether the Versions 2 and 3 of the NeXT Computer constitute statutory prior art.

**ii. Defendants have not Met their Burden that Summary Judgment is Appropriate**

As to Claim 1 of the 575 patent, Plaintiff asserts that Defendants have failed to establish in the NeXT Computers correspondence for the 575 patent Claim 1 requirement of "*a plurality of signal-process systems for converting a plurality of information sets retrieved by said plurality of optical read heads from a compact disc format to the original state of the information*".<sup>32</sup>

As to Claim 4 of the 799 patent, Plaintiff asserts that Defendants have failed to satisfy their burden to establish that the NeXT computers had "*optical head means*". Plaintiff also asserts that Defendants have not established that element (d) is met, contending that "*the NeXT does not have a decoding unit that can convert compact disc format information, nor does it*

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<sup>32</sup> Within this claim element, Plaintiff challenges whether correspondence is demonstrated for "plurality of signal-process systems" and "converting ... from a compact disc format".

*have a decoding unit that can perform error detection and correction.*" Plaintiff also asserts that Defendants have not established that element (e) is met, contending that "*NeXT does not have an encoding unit that can convert compact disc format information, nor does it have an encoding unit that can perform error detection and correction*".

For the following reasons, it is recommended that the Defendants' Joint Motion for Summary Judgment of Invalidity be denied as to each of the 575 and 799 patents, because the Defendants have yet to submit such clear and convincing evidence of facts underlying invalidity that, even if the three versions are prior art under 35 U.S.C. §102(b), no reasonable jury could find otherwise that any of the three versions of the NeXT computer anticipate the Paradigm Claims of the 575 and 799 patent<sup>33</sup>.

a. **Summary Judgment of Invalidity of the 575 Paradigm**  
**Claim 1 Should not be Granted as to the Alleged On-Sale Bar Created by NeXT Computer**

i. **575 Patent: Plurality of signal-process systems**

Claim 1, element (d) has been construed above to require more than one signal-process system that functions to convert the data from the state it is detected by the optical read heads and ready it for transmission to a host computer, and thus would include an error correction function.

Even if the Defendants have set forth sufficient evidence to establish Versions 1, 2 and 3 as prior art, the Defendants have not asserted that any version of the NeXT Computers has more than a single signal processor, known as the Optical Storage Processor ("OSP"). However, for each version of the NeXT Computer, Defendants assert that the single OSP operates effectively as plural different signal-process systems. Defendants reason that the OSP operates in combination with individual modem chips carried by each drive of the NeXT computer, and the resulting combination defines a "signal-process system". The modem ("modem" being short for

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<sup>33</sup> In *Schumer v. Laboratory Computer Systems Inc.*, 308 F.3d 1304, 1315-16, 64 U.S.P.Q.2d 1832, 1841 (Fed. Cir. 2002), the Federal Circuit expressed the following as instructing the proofs of anticipation:

Typically, testimony concerning anticipation must be testimony from one skilled in the art and must identify each claim element, state the witnesses' interpretation of the claim element, and explain in detail how each claim element is disclosed in the prior art reference. The testimony is insufficient if it is merely conclusory.

modulation and demodulation) chips are asserted to perform the function of converting the data. Error detection and correction functions are supposedly performed on the OSP, and thus the function is shared between the drives.

In support of its position on this issue, Defendants have relied upon Seamons at 27 and 31 and Kaliski at 27. See SMF #64 and 65. The referenced Seamons Declaration testimony at 27 addresses the architecture of the optical disc drive. Seamons appears to testify in the Declaration as to the error correction function. In paragraph 29, he appears to testify that error correction is performed by the Decoding Circuits (“Likewise, the Decoding Circuits decoded the data retrieved (read) from the optical disc from the stored format back to its original format (that is, digital data with error correction information added) during a data read”). He also does so at pages 71-72 of his deposition (Plaintiff’s Ex. 5 at 71-72).<sup>34</sup>

The Plaintiff has countered the evidence with Exhibit 1 of the Webster Declaration, the Michalson Declaration at 30-34, which itself also refers to the Seamons Deposition.

Webster Exhibit 1 at A00105 specifically states:

The other large chip on the NeXT motherboard is the Optical Storage Processor, or OSP. This chip implements the entire disk controller for the optical disk drive(s) and, like the IPC was designed and developed entirely at NeXT. It processes all requests by the CPU to read from or write to the optical disk. To ensure the accuracy of the data being transferred, it performs a sophisticated error-correction algorithm, known as the “Reed-Solomon algorithm,” while the transfer is in progress. It has two internal buffers (private memory areas, each 128 bytes long) and uses double buffering to perform the error correction; that is, it transfers corrected data out of one buffer (via the DMA channel) while reading data into the other buffer and then correcting it.

The undisputed evidence in the record shows that a single OSP is employed by the NeXT Computer Version 1. However, the evidence conflicts as to where any error correction is performed (e.g., by the OSP or by the decoding circuit).

In addition to the above, it is noted that the claim calls for conversion of information sets from a “compact disc format”. Defendants have not presented evidence that any of the information sets in Version 1 of the NeXT cube were in a compact disc format. Kaliski at 27 omits “compact disc” from his description of the disc format:

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<sup>34</sup> In the NeXTWORLD Article at A00464, error-correction is identified as a significant function.

27. Each optical disc drive of a dual optical drive NeXT Computer includes decoding units which convert the data retrieved by the respective optical head from the disc format to the original state of the information.

Seamons is likewise silent as to specifying whether compact disc format is employed in the NeXT computers (see, e.g., Seamons at 31: “and a decoding circuit which converted the data retrieved by the optical head from the stored disc format to the original state of the information.”).

Further evidence that contradicts that the NeXT Computer Version 1 employed compact disc format is found in Defendants’ Ex. 40 at (A00464).

In short, in view of the claim construction employed herein, it is recommended that Summary Judgment be denied as to the alleged invalidity of Claim 1 of the 575 patent. The Defendants have not satisfied their burden to show that there is no genuine issue of fact as to whether the NeXT Computer had “a plurality of signal-process systems for converting a plurality of information sets retrieved by said plurality of optical read heads from a compact disc format to the original state of the information”. Neither a “plurality of signal-process systems” is shown, nor is the requirement of “compact disc format” in the alleged NeXT Computer prior art.

**b. Summary Judgment of Invalidity of the 799 Paradigm  
Claim 4 Should Not be Granted as to the Alleged On-Sale  
Bar Created by NeXT Computer**

**i. 799 Patent “Optical Head Means”**

In view of the above construction of “optical head means”, Defendants have not satisfied their burden to demonstrate an absence of any genuine issue of material fact as to whether the device employed in any of the these NeXT versions constitutes an “optical head means”.

At page 15 of the Brief in Support of the Motion, Defendants refer to SMF 83-85. The only evidence upon with the Defendants rely in those paragraphs is the Seamons declaration at 24 and 32 (A252 and A256); as well as the Kaliski Declaration at 46 (A488). The Seamons declaration refers to Exhibits 25 and 26, which Seamons has annotated to include a reference to “optical head”. However, Seamons offers no explanation for the structure or the operation of the “optical head” relative to how it interfaces with the disc for reading or writing (in paragraph 32, he testifies: “an optical head for reading from and writing to the surface of the disc....”). There is

no indication as to what structural elements are included in the optical head. There is no evidence that the “optical head” referred to by Seamons interacts with a disc surface by writing and reading from the disc using light, optics and photosensors. There is also insufficient evidence to address whether the person skilled in the art would consider the NeXT optical head as a structural equivalent to a device that interacts with a disc surface by writing and reading from the disc using light, optics and photosensors<sup>35</sup>. As stated by the Federal Circuit, in *Schumer v. Laboratory Computer Systems Inc.*, 308 F.3d 1304, 1316, 64 U.S.P.Q.2d 1832, 1841-42 (Fed. Cir. 2002):

It is not our task, nor is it the task of the district court, to attempt to interpret confusing or general testimony to determine whether a case of invalidity has been made out, particularly at the summary judgment stage. Indeed, to accept confusing or generalized testimony as evidence of invalidity is improper.<sup>36</sup>

Notwithstanding the above, evidence precluding summary judgment on this issue includes the following evidence<sup>37</sup>. First, Michalson testifies in his Declaration (Plaintiff Ex. 1) at 41: “Since the MO drives write information through the use of magnetic impulses, the NeXT Computer does not allow for the optical interaction with a disc, when writing information, as defined by the ‘799 Patent.’). In Defendants’ Ex. 2 at A000117 (MACWORLD Magazine), it is written: “Perhaps the most innovative – and certainly the most controversial – feature of the Next Computer is its optical disc drive. It uses magneto-optical technology and has full read/write/erase functionality.”

Possibly the most complete description presented about the manner in which the discs of the NeXT were read or written to is found in the Defendants’ Ex. 4, which purports to be a brochure distributed by NeXT Computer (see Defendants’ Ex. 4 at A00140 (Webster at 18)):

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<sup>35</sup> The testimony of Kaliski at Paragraph 46 is conclusory, and not sufficient to satisfy the heavy burden upon Defendants.

<sup>36</sup> The Defendants here seek to satisfy its heavy burden by reliance upon evidence that differs little qualitatively from the evidence upon which Plaintiff seeks to rely in support of its infringement position. In both situations, the evidence appears conclusory.

<sup>37</sup> Plaintiff relies upon NeXT Drive Installation Reference at DPA010789 (P’s App. Ex. 12). That exhibit states: “If You’re Installing an Optical Drive 1. Reattach the 20-pin data cable, which had been connected to the optical drive that came with the computer, to the upper part of the assembly wall”).

## The Optical Drive: A Guided Tour

The optical disk rotates at a brisk 3000 revolutions per minute. Like a compact disc, it has a layer of reflective aluminum backing, on top of which is a magneto-optical substrate. This substrate is comprised of the crystals that actually hold the information. True to digital tradition, information on an optical disk exists as either of two values, "0" or "1". The value is determined by the magnetic orientation of the crystal. Unlike a floppy or Winchester disk, an optical disk cannot be altered by a magnetic field alone. At normal temperatures, the orientation of its crystals remains locked.

Read and write operations are performed by a single laser. Before new data is written, an "erase" process takes place. An electromagnetic device activates, preparing to orient susceptible crystals to the "0" position. The laser then focuses on the substrate, heating it to its Curie point....In this manner, all portions of the disk to be written are erased.

Next comes the writing procedure. The magnetic field is reversed so that it will reorient those sections of the substrate that reach the Curie point to the "1" position. Every spot to be set to the "1" value is then heated by the focused laser. Upon completion of the writing procedure, a second pass is made to verify accuracy.

In reading data, the magnetic field is turned off. A low level laser is aimed at the disk, traveling through the substrate and reflecting off the aluminum backing. Enter the Kerr effect – in which the alignment of the crystals in the substrate alters the polarization of the reflected beam. The beam travels through a polarizing filter to a photodetector, and the intensity of the beam determines whether "0" or "1" was read at that particular spot on the optical disk. Simple.

On the basis of the evidence, a jury reasonably could find that writing with the NeXT computer could not be performed in the absence of a magnetic impulse, and that a combination of both laser beam and magnetic impulse is necessary to write to a disc. There is insufficient evidence to establish by clear and convincing evidence the presence in the alleged NeXT prior art of an optical head device that interacts with a disc surface by writing and reading from the disc using light, optics and photosensors, or structural equivalents that perform such interacting function as required per the construction of optical head means.

Viewing the evidence in the light most favorable to Plaintiff, a jury reasonably could find that evidence describing the NeXT Computer does not fully anticipate Claim 4 of the 799 patent. Accordingly, it is recommended that the Court deny the Motion for Summary Judgment of Invalidity of claim 4 of the 799 patent.

**3) Summary Judgment of Invalidity of the 575 Paradigm Claim 1 and the 799 Paradigm Claim 4 Should Not be Granted as to the Alleged On-Sale Bar Created by the Sony PMC-M2 Device**

Defendants also have contended that, if the claim construction advanced by Plaintiff was adopted, then Claim 1 of the 575 patent and Claim 4 of the 799 patent are invalid as anticipated by certain stereo equipment (PCM-M2 system) purported to have been sold by Sony prior to the critical dates of the 575 and 799 patents. (Defendants' Brief (Invalidity) at 16-17) First, from the above discussion, it is seen that the construction asserted by Plaintiff is not the construction that the Court is recommended to adopt. Accordingly, the issue appears to be moot.

Nevertheless, should the Court decline to adopt the present claim construction recommendation and adopt the construction advanced by the Plaintiff, it is recommended that the Court decline to grant summary judgment of invalidity on the basis of the PMC-M2 device.

First, the Defendants do not specify the provision upon which they rely for asserting the PMC-M2 as prior art. They also do not express whether they rely upon the sales activities for the PMC-M2 or the alleged publication of the service manual for the PMC-M2 (Defendants' Ex. 45).

The date to which Ms. Jackson testifies is March 5, 1996. The critical date for the 575 patent under 35 U.S.C. §102(b) is March 5, 1995. Defendants thus have put forth insufficient evidence to support any bar under Section 102(b) as to the 575 patent. To the extent that Defendants rely upon 35 U.S.C. §102(a)<sup>38</sup> for the 575 patent, the Defendants bear the burden to establish “the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent”. This requires proof of public knowledge or use. See, *Ormco Corp. v. Align Technology Inc.*, 463 F.3d 1299, 79 U.S.P.Q.2d 1931 (Fed. Cir. 2006).

The evidence advanced by Defendants to support its assertion of the alleged prior art activity if the testimony of Janice Jackson, an employee of Sony. In paragraph 7 of Ms. Jackson's Declaration (A00499), she testifies that “7. Sony's PMC-M2 product was publicly known and used in this country prior to March 5, 1996”. (See D's Invalidity SMF 95).

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<sup>38</sup> Section 102(b) requires proof that “the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States”.

The evidence does not suffice as clear and convincing evidence to establish a bar under 35 U.S.C. §102(a) or 102(b). The testimony merely offers Ms. Jackson's conclusory opinion on a legal question. See, *Schumer v. Laboratory Computer Systems Inc.*, 308 F.3d 1304, 1315, 64 U.S.P.Q.2d 1832, 1841 (Fed. Cir. 2002). Moreover, Ms. Jackson's deposition testimony, introduced by the Plaintiff, provides evidence that attacks the foundation for Ms. Jackson's conclusion and raises a question of material fact. (See, e.g., Plaintiff's ex. 15 at 28, 35, 36, and 37).

Ms. Jackson's declaration attempts to authenticate Defendants' Ex. 45 (PMC-M2 Service Manual). However, Ms. Jackson does not testify in her declaration as to the date when the manual became public. Her deposition testimony shows she lacked firsthand knowledge of when it was created or disseminated outside of Sony. (Plaintiff's ex. 15 at 53-54). A review of the Defendants' Ex. 45 shows a purported copyright date on A00527 of 1995, and that the document was "Printed in Singapore". However, on page A00528, the service manual shows a correction sheet with a date in 1996 (this latter page stating it was "Printed in Japan"). Thus, on the face of these documents, the Defendants have not established the PMC-M2 Service Manual as prior art by clear and convincing evidence.

Accordingly, particularly when drawing all justifiable inferences in favor of the Plaintiff as nonmovant, it is recommended that the Court decline to grant summary judgment of invalidity on the basis of the PMC-M2 device.

#### 4. Infringement

Defendants have moved for summary judgment, asserting that Plaintiff is unable to meet its burden to establish infringement of the Paradigm Claims of either the 575 or the 799 patent as to any of the Paradigm Products. For the following reasons it is recommended that the motion be granted.

The Plaintiff has the burden of proving infringement. In bringing their motion for summary judgment, as set forth in *Arthur A. Collins Inc. v. Northern Telecom Ltd.*, 216 F.3d 1042, 1046, 55 U.S.P.Q.2d 1143, 1146 (Fed. Cir. 2000) Defendants needed to discharge:

its initial responsibility by stating the basis for its motion and pointing out that the evidence in the record would be insufficient to avoid a directed verdict against [them]. See *Celotex Corp. v. Catrett*, 477 U.S. 317, 323, 325 (1986). In response, [Plaintiff] was

required to designate specific facts showing that there was a genuine issue for trial. See *id.* at 324; *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248-49 (1986).

On the present record, the Defendants properly discharged their burden. The burden was therefore upon the Plaintiff to establish infringement by a preponderance of the evidence.

a. **575 Patent**

i. **Insufficient evidence of “Data transmitting means...to a host computer” has been presented**

At page 16 of Plaintiff's Brief in Opposition to the Summary Judgment Motion re Non-Infringement, Plaintiff relies upon the following as its evidence to support its burden to prove correspondence of the claimed feature with the Paradigm Products<sup>39</sup>:

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<sup>39</sup> At the hearing (Tr. at 48-49), the following interchange took place concerning this evidence:

**MR. DOBRUSIN:** Okay. Let's stick to the particular Michalson declaration then. And if I'm understanding correctly, you agree that he doesn't give a particularized showing, a particularized showing to correlate the structure that's in the claims with the structure that's in the accused devices, is that correct?

**MR. BASTA:** Well, I think it does, but I don't think it's – I mean it's particular—I can't say any more than it is, it is what it is in terms of identifying, of identifying the structure.

**MR. DOBRUSIN:** Okay. And with some of these claims it was means plus function so he had additionally to show structural equivalence between those?

**MR. BASTA:** With respect to means plus, any means plus function claim, that's right; and I believe again that he's done that and he cited specifically to, to, to the various documents.

**MR. DOBRUSIN:** So the service manuals or the repair manuals and the circuit diagrams in those is the evidence that you're relying upon without specifically identifying the feature within those documents?

**MR. BASTA:** That's the evidence we're relying on, right.

Further dialogue ensued (Tr. at 56-57):

**MR. DOBRUSIN:** The evidence of the infringing or allegedly infringing products that you're relying upon to support the claim, that is confined to the Michalson Affidavit with the respective references to the diagrams that he makes in those paragraphs, is that correct?

**MR. BASTA:** Right. There isn't anything other than –

**MR. REES [Plaintiff's Counsel]:** No deposition testimony or anything like that.

**MR. DOBRUSIN:** Okay. I just want to make sure I have the full set.

**MR. BASTA:** Right. That's the, that the gist of it.

We have talked about Michalson's declaration and you asked about that before with respect to the structure, and I can't – not necessary for me to go any further than we already have....

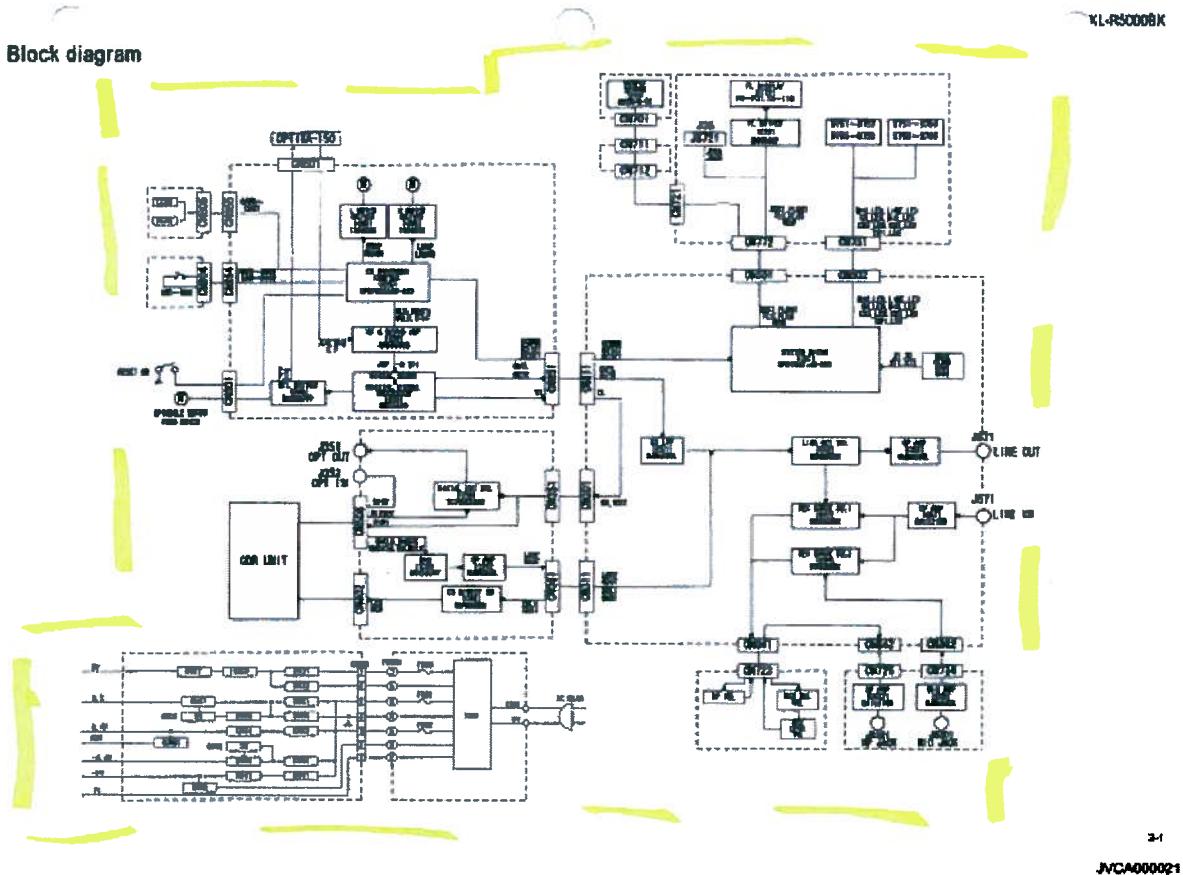
1. P's App. Ex. 1 (Michalson Declaration), ¶¶93-95;

93. The JVC XL-R5000BK Paradigm Product has a “data transmitting means” that includes a control bus, an ITDM, a host interface bus, and RAM/ROM. Serial Output buses (*i.e.*, control bus) transmit control information (instructions) along circuitry associated with each optical drive. Serial input buses receive information from each optical drive to an ITDM for multiplexing subcode data which is then transmitted to the host bus interface. A line output select device, IC621, multiplexes audio information stream (CD or CDR) for output by the unit. Internal ROM/RAM is provided to support program operations from each of the optical drives. (P's App. Ex. 26 (JVC XL-R5000BK Circuit Diagram), at JVCA000021).

94. The Sony RCD-W500C Paradigm Product has a “data transmitting means” that includes a control bus, an ITDM, a host interface and RAM/ROM. Serial Output buses (*i.e.*, control bus) transmit control information (instructions) along circuitry associated with each optical drive. Serial input buses receive information from each optical drive to an ITDM for multiplexing subcode data which is then transmitted to the host bus interface. A/D D/A Converter IC500 multiplexes audio information stream (CD or CDR) for output by the unit. Internal ROM/RAM is provided to support program operations from each of the optical drives. (P's App. Ex. 24 (Sony RCD-W500C Service Manual), at SEL 000057).

95. The Sony RCD-W1 Paradigm Product includes a control bus, an ITDM, a host interface and RAM/ROM. Serial Output buses (*i.e.*, control bus) transmit control information (instructions) along circuitry associated with each optical drive. Serial input buses receive information from each optical drive to an ITDM for multiplexing subcode data which is then transmitted to the host bus interface. Playback signal selection device IC-109 multiplexes audio information stream (CD or CDR) for output from the D/A converter. Internal ROM/RAM is provided to support program operations from each of the optical drives. (P's App. Ex. 25 (Sony RCD-W1 Service Manual), at SEL 000209).

2. P's App. Ex. 26, at JVCA000021;



3. P's App. Ex. 24, at SEL000057<sup>40</sup>;
4. P's App. Ex. 25, at SEL000209<sup>41</sup>; and
5. P's App. Ex. 1 (Michalson Declaration), ¶ 102.

102. The structures referred to above in ¶¶93-95 for the accused Paradigm Product all perform the same function as the claimed “data transmitting means” (i.e., transmitting to the host computer), in the same way (i.e., through a time division multiplexed structure) to achieve the same result (i.e., transmitted information sets). Accordingly, the Paradigm Products satisfy clause (e) as either a literal equivalent under “means plus function” or under the Doctrine of Equivalents.

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<sup>40</sup> This document has a marking of Confidential and, accordingly, is not reproduced in this Report.

<sup>41</sup> This document also has a marking of Confidential and, accordingly, is not reproduced in this Report.

The above showing does not explain the operation of the Paradigm Products. There is no identification in the schematics relied upon by Dr. Michalson as to the structure that corresponds with a control bus, an ITDM, a host interface or a RAM/ROM. The Michalson testimony in paragraphs 93-95 that such features are found in the accused Paradigm Products is an unsupported conclusion that a critical claim limitation is satisfied, and does not avoid summary judgment. *See, TechSearch LLC v. Intel Corp.*, 286 F.3d 1360, 62 U.S.P.Q.2d 1449 (Fed. Cir. 2002); *Arthur A. Collins Inc. v. Northern Telecom Ltd.*, 216 F.3d 1042, 55 U.S.P.Q.2d 1143; (Fed. Cir. 2000); and *Phillips Petroleum Co. v. Huntsman Polymers Corp.*, 157 F.3d 866, 48 U.S.P.Q.2d 1161 (Fed. Cir. 1998).

The Michalson testimony does not specify facts for his conclusions that each of the asserted features is present in the Paradigm Products. There is no indication as to the specific structure in the Paradigm products relied upon by Michalson as corresponding to the claim elements (by way of example, Michalson does not annotate the circuit diagrams upon which he relies to point to any specific structural element). Michalson does not explain the specifications of such element. Michalson does not inter-relate the operation of such element relative to any other elements. There is also no evidence or analysis to support that such structure would be equivalent to the claimed “data transmitting means” structure that includes a high-speed system control bus, an ITDM, a wide-band host interface bus, and ROM/RAM (read only memory and random access memory).

Michalson paragraph 102 likewise is conclusory, and does not suffice to meet the burden upon Plaintiff, as described in *Motionless Keyboard Co. v. Microsoft Corp.*, 486 F.3d 1376, 1382-83, 82 U.S.P.Q.2d 1801, 1805 (Fed. Cir. 2007)<sup>42</sup>:

To avoid a grant of summary judgment of non-infringement by equivalents, the patentee must present “particularized evidence and linking argument as to the ‘insubstantiality of the differences’ between the claimed invention and the accused device, or with respect to the ‘function, way, result’ test.” *PC Connector Solutions LLC v. SmartDisk Corp.*, 406 F.3d 1359, 1364 [74 U.S.P.Q.2d 1698] (Fed. Cir. 2005) (citing *Texas Instruments Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1567 [39 U.S.P.Q.2d 1492] (Fed. Cir. 1996)). Thus, the patentee has the burden to present particularized evidence that links the accused products to the patent on a limitation by limitation basis. *General Elec. v. Nintendo Co.*, 179 F.3d 1350, 1359 n.5 [50 U.S.P.Q.2d 1910] (Fed. Cir. 1999).

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<sup>42</sup> See also, *Stumbo v. Eastman Outdoors Inc.*, 508 F.3d 1358, 85 U.S.P.Q.2d 1275 (Fed. Cir. 2007)

As with paragraphs 93-95, the statements in paragraph 102 are conclusory, and lack particularity. Plaintiff does not provide any explanation for how the systems depicted in the above schematics function, let alone an identification of particular structure in the accused Paradigm Products for which a structural equivalency analysis must be made under 35 U.S.C. §112 ¶ 6. The generalized statements of Michalson that the structures “all perform the same function as the claimed “data transmitting means” (i.e., transmitting to the host computer), in the same way (i.e., through a time division multiplexed structure) to achieve the same result (i.e., transmitted information sets),” do not raise any genuine issue of material fact under either a “means-plus-function” analysis or a doctrine of equivalents analysis.<sup>43</sup> *See, Network Commerce Inc. v. Microsoft Corp.*, 422 F.3d 1353, 76 U.S.P.Q.2d 1330 (Fed. Cir. 2005); see also, *Moore U.S.A., Inc. v. Standard Register Co.*, 229 F.3d 1091, 1113, 56 U.S.P.Q.2d 1225, 1240 (Fed. Cir. 2000)( “[t]he mere recital of the Graver Tank mantra that the accused device performs ‘the same function, in the same way, to achieve the same result,’ without more, does not create a genuine issue of material fact as to whether an accused device infringes by equivalents”). There is simply no identification and correlation of structure in the accused Paradigm Products from which an equivalents analysis can be made.

As previously discussed, Claim 1 of the 575 patent has been construed to not require the presence of a host computer. Notwithstanding, Plaintiff has not identified any structure (literally or by equivalents) in the accused Paradigm Product that performs the function of transmitting converted data in a form that would be intelligible to a host computer.

In short, it is recommended that summary judgment be granted that Paradigm Claim 1 of the 575 patent is not infringed by any of the Paradigm Products, due to insufficient evidence to establish the presence in the Paradigm Products of data transmitting means for transmitting a plurality of the information sets converted by said plurality of signal-process systems to a host computer.

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<sup>43</sup> The Michalson analysis makes no attempt to identify the existence of any hardware capable of handling converted digital data that includes at least a high-speed system control bus, an ITDM, a wide-band host interface bus, and ROM/RAM (read only memory and random access memory), and structural equivalents to such hardware.

**ii. Insufficient evidence of Multitasking has been presented**

As construed, the construction of “multitasking” contemplates that at least one of the tasks, albeit not necessarily the only task, performed by the claimed apparatus is the launching and execution of software carried on a disc. The Plaintiff has failed to satisfy its burden that the claim requirement of “multitasking” is met in the accused devices. Plaintiff has designated no facts and has not pointed to any evidence that supports that the Paradigm Products include any hardware for or otherwise performs the function of launching, executing or otherwise processing any software on any of disc.

Plaintiff has attempted to create a question of fact by identifying the various features offered by the Paradigm Products, and concluding on the basis of such features that “multitasking” must occur. However, Plaintiff has not provided evidence to support that any one of the features involve launching or executing of software. Even if it might be argued that the Digital Rights management features of the Paradigm Products somehow pertain to software, Plaintiff has put forth no evidence to explain the structure or operation of such feature, or how any such digital rights management feature interacts with the hardware of the Paradigm Products to accomplish multitasking, or the launching or execution of software from discs.

In addition, there is no evidence to support a claim for infringement under the doctrine of equivalents, because there is an absence of particularized testimony and linking argument to support any such assertion. *Network Commerce Inc. v. Microsoft Corp.*, 422 F.3d 1353, 76 U.S.P.Q.2d 1330 (Fed. Cir. 2005). Moreover, Plaintiff fails to identify (and Michalson neither provides nor relies upon) any evidence to support that any particular structure in the Paradigm Products performs any function of launching or executing software from an optical disc. See, *Spectra Corp. v. Lutz*, 839 F.2d 1579, 5 U.S.P.Q.2d 1867 (Fed. Cir. 1988).

Accordingly, it is recommended that summary judgment of noninfringement be granted as to each Paradigm Product, in view of a lack of evidence to establish that the Paradigm Products fulfill the multitasking requirement of Claim 1 of the 575 patent.

**b. 799 Patent**

**i. Insufficient evidence of “Means for Simultaneously Controlling” Element (f) has been presented**

The burden is upon the Plaintiff to demonstrate the existence in each of the accused Paradigm Products of a system control unit that includes a microprocessor with both ROM, RAM and SRAM, with local control units (each containing a microprocessor, ROM and RAM), or structural equivalents that perform the function of “simultaneously controlling said plurality of head units, said at least one decoding unit and said at least one encoding unit to process information in multitasking”. Plaintiff has not satisfied its burden<sup>44</sup>.

Similarly to the proofs relative to the 575 Patent, Plaintiff relies solely upon generalized depictions, namely P’s App. Ex. 26 (JVC XL-R5000BK Circuit Diagram), at JVCA000021); (P’s App. Ex. 24 (Sony RCD-W500C Service Manual), at SEL 000056-57); (P’s App. Ex. 25 (Sony RCD-W1 Service Manual), at SEL 000206-208);<sup>45</sup> and the Michalson Declaration at paragraph 85<sup>46</sup>:

84. For each of the accused Paradigm Products, there is an optical-drive control unit in each optical control drive that responds to commands issued from a main control unit to simultaneously coordinate the operation and movement of the optical units. P’s App. Ex. 26 (JVC XL-R5000BK Circuit Diagram), at JVCA000021); P’s App. Ex. 24 (Sony RCD-W500C Service Manual), at SEL 000056-57); P’s App. Ex. 25 (Sony RCD-W1 Service Manual), at SEL 000206-208). Therefore, each of the accused paradigm Products meet clause (c).

85. The structure referred to above in ¶84 for the accused Paradigm Product performs the same function as the claimed “means for simultaneously controlling” (*i.e.*, simultaneously coordinating the operation and movement of the optical units), in the same way (*i.e.*, through control unit and/or related circuitry) to achieve the same result (*i.e.*, coordination of optical units to achieve various features, *i.e.*, Relay Play and Dual Play). Accordingly, the Paradigm Products satisfy clause (c) as either “an equivalent thereof” under “means plus function” or under the Doctrine of Equivalents.

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<sup>44</sup> Even if a construction is adopted that does not require any local control units, the evidence is deficient for the reasons set forth herein.

<sup>45</sup> Plaintiff also made passing reference to its Ex. 21 at SEL000168 in footnote 12 of its Brief.

<sup>46</sup> The reference to paragraph 85 appears in line 1 of page 18 of the Plaintiff’s Brief, but appears accidentally to refer to evidence for the 575 patent. Plaintiff’s arguments in its Brief do not link to any other supporting evidence of infringement on this element of the 799 patent. Upon review, Michalson paragraph 125, nonetheless has been considered.

125. For each of the Paradigm Products, there is an optical-drive control unit, including drive and control electronics, in each optical drive that responds to commands issued from a main control unit to simultaneously coordinate the operation and movement of the optical units and the decoding and encoding functions. P's App. Ex. 25 (**sic**) (JVC XL-R5000BK Circuit Diagram), at JVCA000021); P's App. Ex. 24 (Sony RCD-W500C Service Manual), at SEL 000056-57); P's App. Ex. 25 (Sony RCD-W1 Service Manual), at SEL 000206-208). Therefore, each of the accused Paradigm Products meets clause (f).

The above statements in the Michalson Declaration are conclusory, and lack particularity. Plaintiff does not provide any identification of structure in the Paradigm Products that corresponds with any of the required structural elements or their equivalents (e.g., a microprocessor with both ROM, RAM and SRAM) for a system control unit<sup>47</sup>. Nor does Plaintiff identify structure corresponding with local control units (each containing a microprocessor, ROM and RAM). There is no explanation for how the components in the schematics relied upon by Plaintiff function or interrelate. Further, there is no mention whatsoever of the *Graver Tank*<sup>48</sup> function-way-result test or any other equivalency test for the analysis of the 799 patent. There is no evidence to address equivalency at all.

Accordingly, it is recommended that Summary Judgment on noninfringement be granted in favor of Defendants as to each of the Paradigm Products, for the failure to establish the presence in the accused Paradigm Products of “means for simultaneously controlling said plurality of head units, said at least one decoding unit and said at least one encoding unit to process information in multitasking”.

## ii. Insufficient evidence of Multi-tasking has been presented

As with the 575 patent, as construed in the 799 patent, the construction of “multitasking” contemplates that at least one of the tasks, albeit not necessarily the only task, performed by the claimed apparatus is the launching and execution of software carried on a disk. The Plaintiff has failed to satisfy its burden that the claim requirement of “multitasking” is met in the accused

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<sup>47</sup> This is pertinent, because even if the Court does not adopt a claim construction to require the presence of local control units, the Plaintiff has not satisfied its burden under a broader construction, which omits local control units.

<sup>48</sup> *Graver Tank & Mfg. Co., Inc. v. Linde*, 336 US 271 (1949)

devices. Plaintiff has designated no facts and has not pointed to any evidence that supports that the Paradigm Products include any hardware for or otherwise performs the function of launching, executing or otherwise processing any software on any optical disc.

In addition, there is no evidence to support a claim for infringement under the doctrine of equivalents, because there is an absence of particularized testimony and linking argument to support any such assertion. *Network Commerce Inc. v. Microsoft Corp.*, 422 F.3d 1353, 76 U.S.P.Q.2d 1330 (Fed. Cir. 2005). Moreover, Plaintiff fails to identify (and Michalson neither provides nor relies upon) any evidence to support that any particular structure in the Paradigm Products performs any function of launching or executing software. See, *Spectra Corp. v. Lutz*, 839 F.2d 1579, 5 U.S.P.Q.2d 1867 (Fed. Cir. 1988).

Accordingly, it is recommended that summary judgment of noninfringement be granted as to each Paradigm Product, in view of a lack of evidence to establish that the Paradigm Products fulfill the multitasking requirement of Claim 4 of the 799 patent.

#### E. Conclusions

**For the above reasons, it is recommended that the following claim construction be adopted:**

- 1) “**multitasking**” (of the 575 patent claim 1) be construed as a required element of claim 1 of the 575 patent, and that it be construed in accordance with its stated definition at 3:23-27 of the 575 patent, to require the launching or execution of software from an optical disc as at least one of the multiple tasks performed in combination with some other task;
- 2) “**data transmitting means**” (of the 575 patent claim 1) be construed to cover hardware capable of handling converted digital data that includes at least a high-speed system control bus, an ITDM, a wide-band host interface bus, and ROM/RAM (read only memory and random access memory), and structural equivalents to such hardware;
- 3) “**a plurality of signal-process systems for converting a plurality of information sets retrieved by said plurality of optical read heads from a compact disc format to the original state of the information**” (of the 575 patent claim 1), be construed to include more than one signal-process system that does not merely convert data, but includes the associated functions necessary to convert the data from the state it is detected by the optical read heads (namely, from a format by which pits are formed on a coated polymer

disc, such that the presence or absence of the pits can be detected by a laser of the optical read heads) and ready it for transmission to a host computer, including error correction;

- 4) “**means for simultaneously controlling**” (of the 799 patent claim 4) be construed to require a combination of a system control unit that includes a microprocessor with both ROM, RAM and SRAM, with local control units (each containing a microprocessor, ROM and RAM), and structural equivalents that perform the function of “simultaneously controlling said plurality of head units, said at least one decoding unit and said at least one encoding unit to process information in multitasking”;
- 5) “**multitasking**” (of the 799 patent claim 4) be construed to require the launching or execution of software from an optical disc as at least one of the multiple tasks performed in combination with some other task; and
- 6) “**optical head means**” (of the 799 patent claim 4) be construed to cover an optical head device that interacts with a disc surface by writing and reading from the disc using light, optics (lenses, prisms and waveplates) and photosensors, and structural equivalents that perform such interacting function.

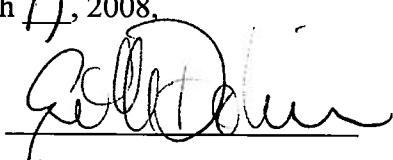
**On the basis of the recommended claim construction, it is further recommended that:**

- 1) Summary Judgment be **DENIED** as to the alleged invalidity of Claim 1 of the 575 patent and Claim 4 of the 799 patent because Defendants have not satisfied their burden on summary judgment to establish an absence of a genuine issue of material fact as to whether the Paradigm Claims are anticipated by the Versions 2 and 3 of the NeXT Computer or whether the Versions 2 and 3 of the NeXT Computer constitute statutory prior art;
- 2) Summary Judgment be **DENIED** as to the alleged invalidity of Claim 1 of the 575 patent, because the Defendants have not satisfied their burden to show that there is no genuine issue of fact as to whether the NeXT Computer had “a plurality of signal-process systems for converting a plurality of information sets retrieved by said plurality of optical read heads from a compact disc format to the original state of the information”;
- 3) Summary judgment be **DENIED** as to the alleged invalidity of Claim 4 of the 799 patent because a jury reasonably could find that evidence describing the NeXT

Computer does not fully anticipate Claim 4 of the 799 patent, in view of the “optical head means” requirement.

- 4) Summary judgment be **DENIED** as to the alleged invalidity of the Paradigm Claims of each of the 575 and 799 on the basis of the PMC-M2 device;
- 5) Summary judgment be **GRANTED**, in favor of Defendants, that Paradigm Claim 1 of the 575 patent is not infringed by any Paradigm Product, due to insufficient evidence to establish the presence in the Paradigm Products of “data transmitting means for transmitting a plurality of the information sets converted by said plurality of signal-process systems to a host computer”, as that clause has been construed;
- 6) Summary judgment of noninfringement be **GRANTED**, in favor of Defendants, as to each Paradigm Product, that Paradigm Claim 1 of the 575 patent is not infringed by any Paradigm Product, in view of insufficient evidence to establish that the Paradigm products fulfill the multitasking requirement of Claim 1 of the 575 patent;
- 7) Summary Judgment on noninfringement be **GRANTED**, in favor of Defendants, as to each Paradigm Product, that Paradigm Claim 4 of the 799 patent is not infringed by any Paradigm Product for the failure to establish the presence in the accused Paradigm Products of “means for simultaneously controlling said plurality of head units, said at least one decoding unit and said at least one encoding unit to process information in multitasking”; and
- 8) Summary judgment of noninfringement be **GRANTED**, in favor of Defendants, as to each Paradigm Product, that Paradigm Claim 4 of the 799 patent is not infringed by any Paradigm Product, in view of insufficient evidence to establish that the Paradigm Products fulfill the functional multitasking requirement of Claim 4 of the 799 patent.

Respectfully Submitted on March 19, 2008,



Eric M. Dobrusin (P41605)

Special Master to  
Honorable Avern Cohn